# NOKIA 7291/8291/ 9291 CINESCREEN

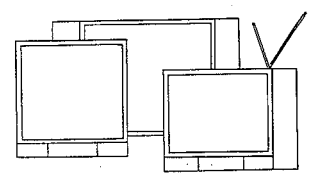
(D) Bedienungsanleitung

(F) Mode d'emploi

(GB) Operating instructions

(I) Istruzione per l'uso

(NL) Gebruiksaanwijzing

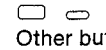


TV · VIDEO · HIFI

# The new TV MOUSE remote-control system

On this remote control, the differently shaped buttons have different functions:

Round buttons for TV MOUSE control



Other buttons for further control functions.

With the completely new type of TV MOUSE operating system provided, you only need a few buttons to trigger a wide variety of operating functions.
The remote control, with its round TV MOUSE buttons, essentially works like a computer mouse. However, do not leave it lying on the table when you want to use it, but take it in your hand and turn it to the left ← or to the right →, or tilt it upwards ↑ or downwards ↓, and press the round TV MOUSE button desired. For example **TV**: as soon as you press it, sound reproduction will be → louder or ← quieter, or the TV programs will be switched through ↑ forwards or ↓ backwards.

When you release the button in question, the adjustment procedure is stopped immediately.

In a neutral (i.e. almost horizontal ●) position of the remote control, you can use three round TV MOUSE buttons to switch on screen menus, which will provide you with a display showing you all the operating movements you make, thus always giving you a complete overview of the adjustments you are currently making.

These three round buttons are sufficient for daily menu-prompted operation:

**VIDEO** for video functions (Menu Ⓐ)

**AUDIO** for audio functions (Menu Ⓑ)

**MENU** for program selection functions (Menu Ⓒ)

In each menu, there is a white line (or part of a white line) pointing at the function currently active, enabling you to perform a selection or adjusting procedure.

This white position indicator (referred to as a „cursor" in connection with computers) can be moved in the TV MOUSE directions ↓ and ↑ downwards or upwards to different functions, using the remote control.

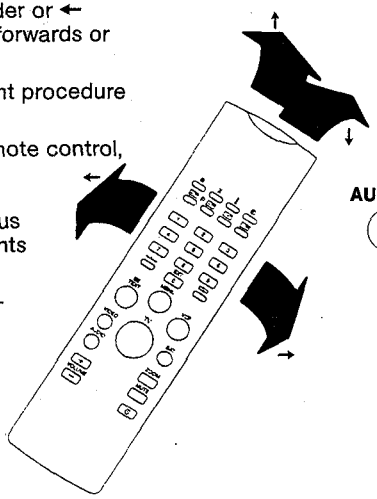
In the TV MOUSE directions ← and →, the remote control can be used to perform adjustment or selection procedures.

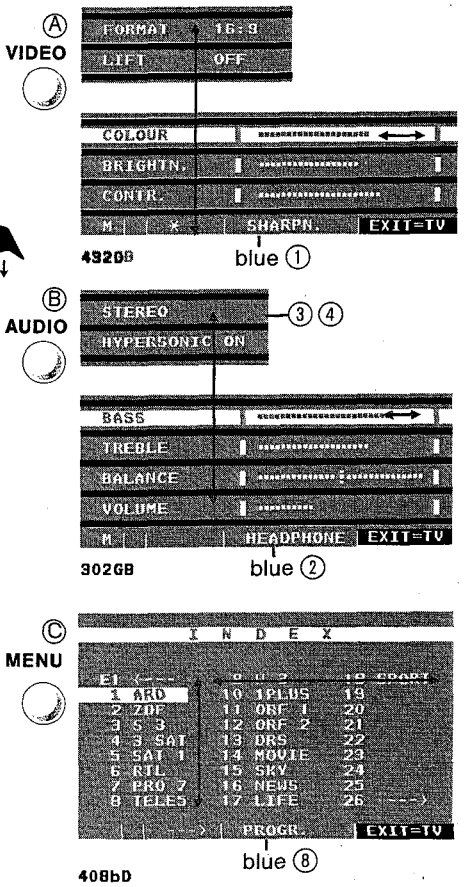
The different movements you can perform with the remote control, in connection with the round TV MOUSE buttons, trigger the following operating functions:

- ● Call up menu or function
- ← Function in question decreases or is switched over
- → Function in question increases or is switched over
- ↓ Function selection backwards
- ↑ Function selection forwards
  You will find these movement symbols throughout these operating instructions.

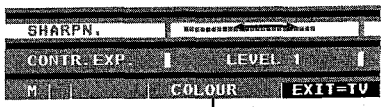
Please avoid any control commands with imprecisely defined movement directions, such as ↖, since this may cause the set to perform unwanted functions.

All other buttons on the remote control do **not** react to directional movements.



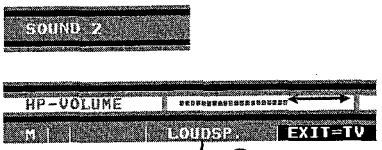


① VIDEO



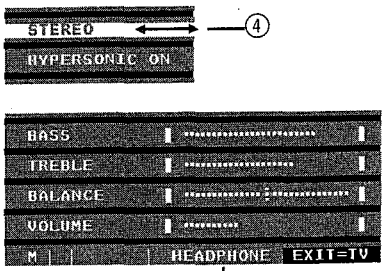

404GB blue Ⓐ

② AUDIO



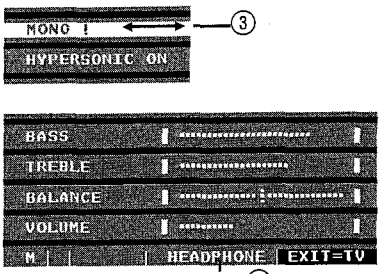

403GB blue Ⓑ

③ AUDIO



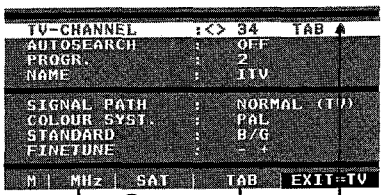

322GB blue ②

④ AUDIO



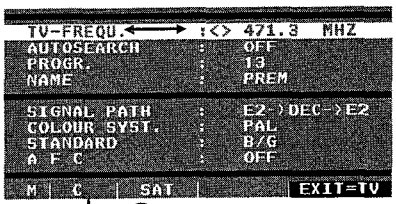

431GB blue ②

⑤ MENU



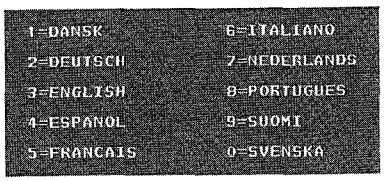

405GB green ⑥ blue

⑥ MENU



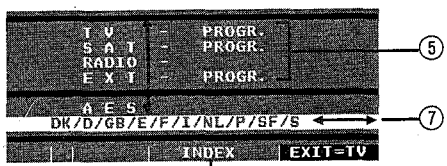

406GB green ⑤

⑦ 0 … 9




401

⑧ MENU




410a blue Ⓒ

Please read these operating instructions carefully, and while doing this, carry out the operating steps required in each case at once, so that you can see how easy it is to trigger the set's various operating functions.

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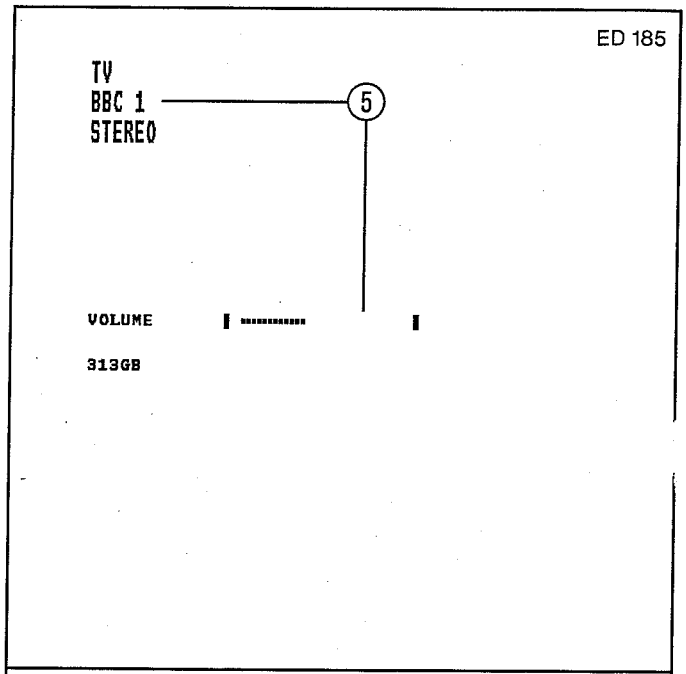
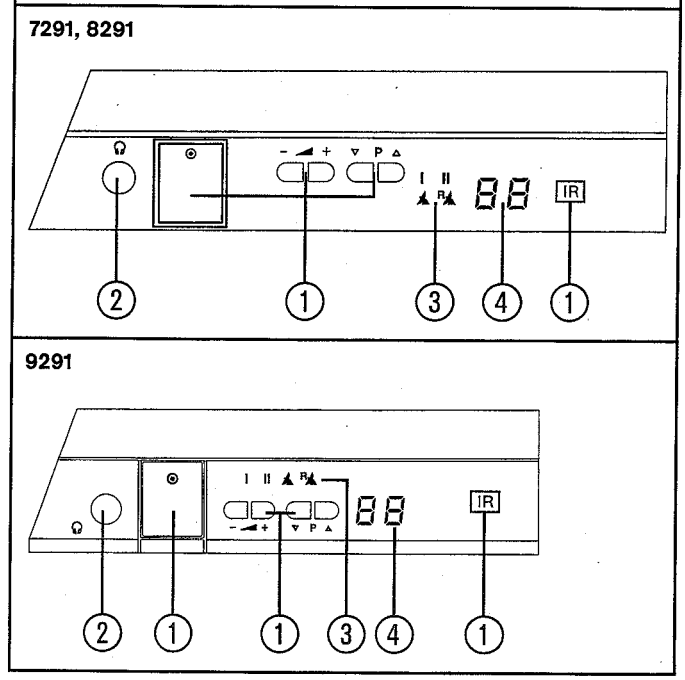


# Controls, connection sockets and displays, and their functions

| ① Button | Functions |
|---|---|
| ⊙ | Mains on/off |
| ◢ + - | Volume |
| P ▽ △ | Switching through the program memory locations forwards and backwards |
| IR | Infra-red receiver |
| M | Magnetic-field switch (9291, 8291) |

| ③ Displays | Functions |
|---|---|
| I II | Stereo program |
| I | Language 1 with dual-language program |
| I | Language 2 with dual-language program |
| 🛰* | Receiving a satellite program |
| R🛰* | Recording a satellite program with a video recorder |

* only when your set has been retrofitted with a satellite tuner

| Display | Function |
|---|---|
| ④ in the control panel | |
| Display flickering when remote control is used for operation | |
| Display lit up: | |
| 28 | Channel display |
| ⑤ on the screen | |
| | Program on-screen display with type of station involved (TV, SAT, EXT), station name and stereo/dual-language display; lights up only briefly<br>Adjustment superimposition for volume |

| ① ② Sockets | Functions |
|---|---|
| 🎧 | Earphones 6.3 mm ⌀, 50 Ω |
| AV | Audio/video inputs, e.g. for camcorder |
| Y TV | TV aerial, 75 Ω |
| 🔈 | External loudspeakers 8 Ω, right-hand and left-hand channels |
| EXT 1, 2, 3 | Audio/video inputs and outputs (SCART) |
| 🔊 | Output for bass loudspeaker or power amplifier, 8-pole |
| ⊶ | Output socket pair for HIFI audio system |

## Remote-control battery

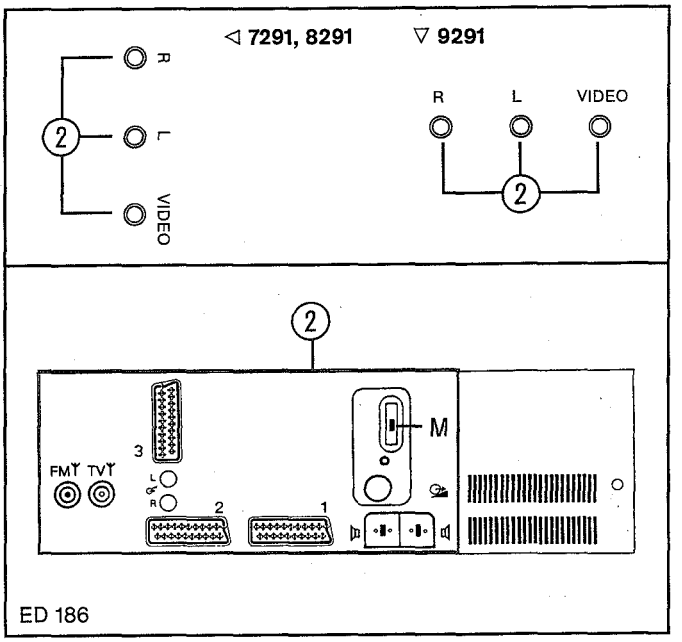
### Replacing the battery

You need a 9-Volt power block, Series IEC 6 F 22.

1. Remove the battery compartment lid in the direction of the arrow.
2. Take out the spent battery.
3. Insert the new battery block in the battery compartment so that the position of + and – printed on battery and battery compartment coincide.
4. Push the lid back in position.

### Battery disposal

Spent batteries – no matter what kind – do not belong in household garbage!
Please dispose of your spent batteries without endangering the environment, by taking them to the special waste depot in your neighbourhood, or handing them in at your electrical goods dealer.



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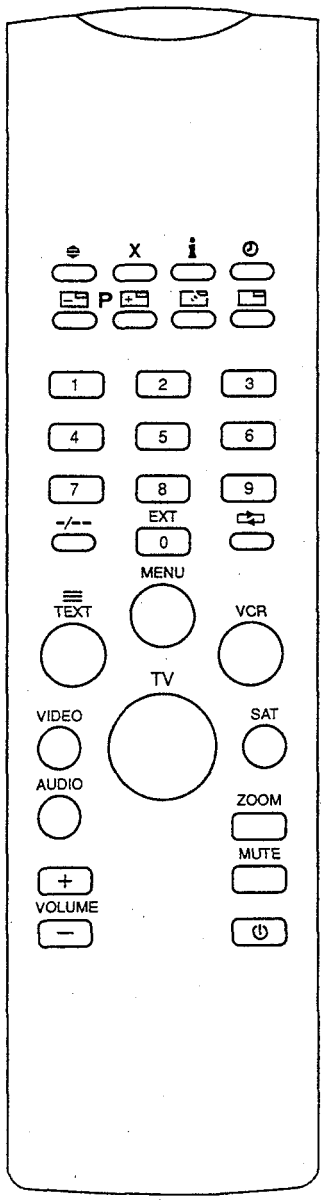


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# Remote control buttons, and their functions

To control the set functions, point the remote control at the control panel with the set's infra-red receiver. For TV MOUSE functions, tilt the remote control in the requisite TV MOUSE direction, cf. pages 2 and 3. When the television set is switched on, the ④ display will flicker each time you press a button.

The TV MOUSE functions are controlled by a contact ball inside the remote control. When you tilt the remote control in the TV MOUSE directions, you will be able to hear the ball moving. The noises do not mean that the remote control is defective; they provide an acoustic confirmation of the adjusting movements.

**The round TV MOUSE buttons and their functions**

| Button | Movement | Function |
|---|---|---|
| **AUDIO** | ● | Calling up the menu for audio functions |
| | ↑, ↓ | Selecting an audio function |
| | ←, → | Sound adjustments:<br>Volume*,<br>Basses,<br>Trebles,<br>HYPERSONIC,<br>Stereo balance,<br>Stereo/mono reproduction or<br>dual-language sound I or II*,<br>Digital sound with NICAM programs*<br>* also possible separately for earphones operation |
| **VIDEO** | ● | Calling up the menu for video functions |
| | ↑, ↓ | Selecting a video function |
| | ←, → | Picture adjustments:<br>Picture format 4:3/16:9<br>Lift with 4:3 film format<br>Grey tone with 4:3 format<br>Colour intensity,<br>Brightness,<br>Contrast,<br>Hue (with NTSC operation),<br>Picture contours,<br>Contrast expander |
| **TV** | ● | Fading out a menu,<br>returning from text to TV operating mode,<br>picture-in-picture operating mode off<br>Calling up the default settings from memory again |
| | ↑, ↓ | Switching through the program memory locations forwards and backwards |
| | ←, → | Volume adjustment |

| Button | Movement | Function |
|---|---|---|
| ≡ TEXT | ● | Switching over to text mode |
| | ←, → | Browsing forwards and backwards in text pages |
| MENU | ● | Calling up the INDEX menu for program selection |
| | ↑, ↓, ←, → | Choosing a program |
| MENU | **Blue** button | Calling up the menu for programming procedures |
| | ↑, ↓ | Selecting a programming function for terrestrial TV channels,<br>satellite programs*, radio programs*,<br>Operation with external sets,<br>AES (analog equalizer),<br>Selecting the menu language |
| | ←, → | Calling up the programming menu |

**In the TV menu:**

| | | |
|---|---|---|
| MENU | ←, → | Depending on selection performed with the green button,<br>channel selection:<br>Switching through the channel numbers,<br>Selecting the channel tables using the blue button,<br>Station search function,<br>Selecting the program memory location number,<br>Selecting the station name from the name list,<br>Selecting the signal path,<br>Programming additional station names,<br>Selecting the colour TV standard,<br>Selecting the transmission system,<br>Fine tuning<br>or<br>Station selection:<br>Tuning through reception bands,<br>Station search function,<br>Selecting the program memory location number,<br>Selecting the station name from the name list,<br>Selecting the signal path,<br>Programming additional station names,<br>Selecting the colour TV standard,<br>Selecting the transmission system,<br>Switching the automatic tuning feature on and off |

**In the EXT menu:**

| | | |
|---|---|---|
| MENU | ←, → | Selecting the EXT input,<br>Selecting the program memory location name,<br>Selecting the input signal,<br>Selecting the colour standard,<br>Selecting the time constant VCR or TV (synchronization) |

* with retrofitted tuners

With appropriately equipped sets, further programming functions for satellite or broadcasting stations as per separate operating instructions.

**VCR, SAT**
These buttons can be used for function control only when an appropriately designed video recorder or an external satellite receiver is connected to the set, cf. page 40.

**The other buttons on the remote control and their functions**

| Button | Operation | Function |
|---|---|---|
| ⏻ | | Switching off to standby mode |
| VOLUME + – | | Adjusting the volume |
| ZOOM | | Changing over between the 4:3 film format and the 4:3 picture format |
| MUTE | | Switching sound reproduction via the loudspeakers on and off |
| 0 – 9 | | Switching the set on from standby mode, program memory location selection |
| EXT | AV | AV source selection |
| -/-- | TV, SAT | Switching over between one- and two-digit program memory location numbers |
| ⇄ | TV, SAT, AV | Changing over between two program memory locations |
| ⏲ | TV, SAT, AV | Fading the time in and out,<br>operative with stations with TELETEXT |
| Coloured buttons | TV | PIP and POP functions, pages 38, 39 |
| | VT | Text subject selection with TOP/FASTEXT |
| | MF | Menu selection |

You will find text functions from page 30 onwards

**Please note:**
Severe interference, such as thunderstorms, may mean that the set will no longer react to commands given with the remote control. If this happens, please switch the set off for a few moments, using the mains button.

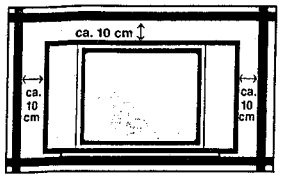


Fig. 1

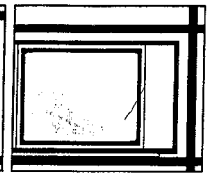


Fig. 2

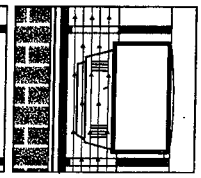
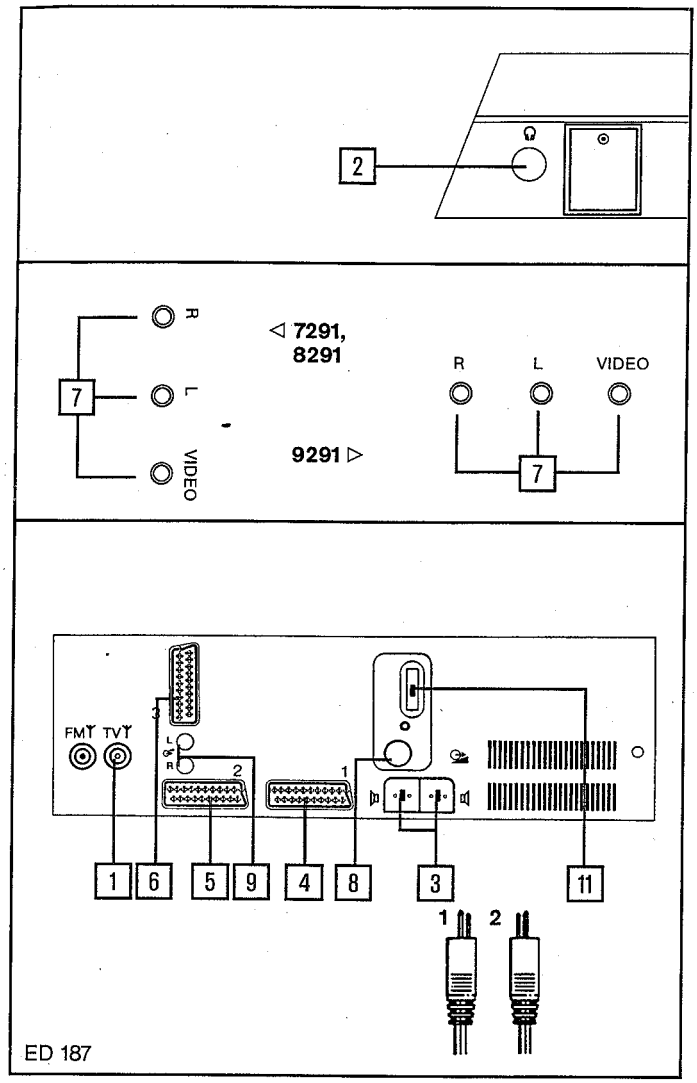


Fig. 3




## Positioning the set in place

We recommend you to place the TV set in a dry place, as free as possible, not in the vicinity of heaters and out of reach of warming or dazzling sunlight, on a sturdy table or a stand approved for the purpose (please follow the installation instructions).

If you intend to place your set on a shelf, make sure that there is sufficient space for heat dissipation. 10 cm distance on all sides of the set are sufficient (Fig. 1). If the shelf is not wide enough (Fig. 2), you must modify the shelf boards (Fig. 3) or remove the rear wall *of the shelf*.

Do not cover the rear ventilation slots with cloths or newspapers (this will reduce useful lifetime, and also involves a fire risk).

There must not be any strong, magnetic field causing interference, e.g. from HIFI loudspeakers or power cables, acting on the set. For purposes of protection, we recommend keeping video and audio cassettes at a distance of not less than 50 cm away from the set.

## Important notes

Please keep small children and unauthorized persons away from the set, and be careful not to allow any objects or liquid to penetrate inside the set.

In order to avoid a slight electric shock, please make sure that you first make all necessary connections [1] – [9] **before** connecting the set to the mains with Step [10],
or:
switch the set off **using the mains button** (cf. „Switching the set on and off", page 10), **before** you subsequently make further connections or alter existing connections.
The above remarks apply to both the cable end already or about to be connected to this set and to the other end of the cable.

Should the set have suffered any damage or if there is a risk of damage, withdraw the mains plug from the socket (if there is a thunderstorm, the aerial plug as well).
*Do not* pull at the mains lead, and be careful *not* to damage it.

*Do not* open the rear wall of the set. Any repairs may be performed only by authorized service personnel.

# Connections

## Aerial connection

[1] Connect the TV aerial cable to socket Y
or – when a video recorder is being used –
connect the aerial cable to the aerial socket of the video recorder, and the video recorder's HF output socket to socket Y of this set.

## Earphones connection (jack socket 6.3 mm) ∩

[2] For stereo earphones (impedance > 50 Ω).
For adjustment of the earphones volume, please read page 14 [6].

## Loudspeaker connection

[3] For loudspeakers (impedance > 8 Ohm), e.g. to extend the stereo base: ⊩ (right channel), ⊣ (left channel).

Plug position 1 = the set loudspeakers continue to run.
Plug position 2 = the set loudspeakers are switched off.

## EXT socket 1 Recording and playback

[4] This is intended for devices like your video recorder, video disk player, video games, PAL satellite receiver, PAY-TV decoder, video cameras, computer and tape/cassette recorder, and is suitable both for video and RGB input signals.

## EXT socket 2 Recording and playback

[5] For a Super-VHS video recorder, all audio/video sets as listed under [4] above, and for recording satellite programs with a built-in satellite receiver and for video transcopying procedures from EXT **3** and **AV**.

## EXT socket 3 Recording and playback

[6] You can connect standard and S-VHS recorders to this socket.

## AV sockets Playback

[7] For a video recorder or camcorder.

## AUDIO output 1

[8] For a power amplifier or an active bass loudspeaker, i.e. a bass loudspeaker with integrated amplifier.
The units connected are switched on and off automatically together with the television set. All sound adjustments performed with the remote control will affect external amplifiers as well.

[!] Do not use an amplifier which passes input signals to the TV set.

## AUDIO output 2

[9] For sound transmission over the audio input sockets of a HIFI system: L = left audio channel, R = right audio channel.
To adjust the volume, perform Step [6] on page 14.

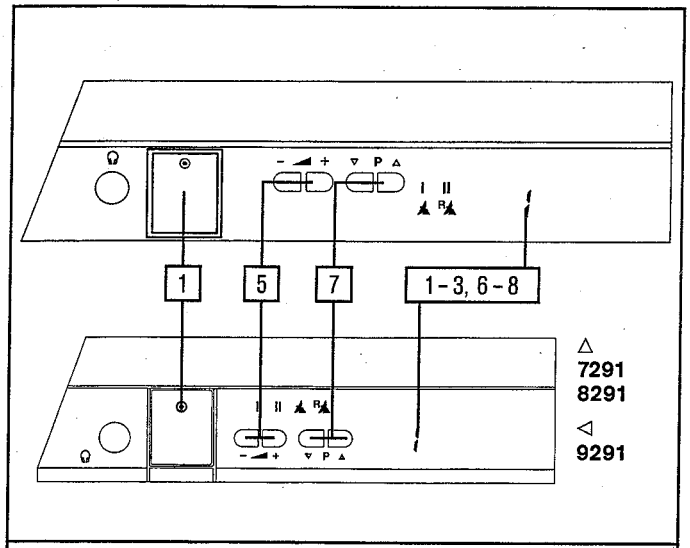
## Mains connection

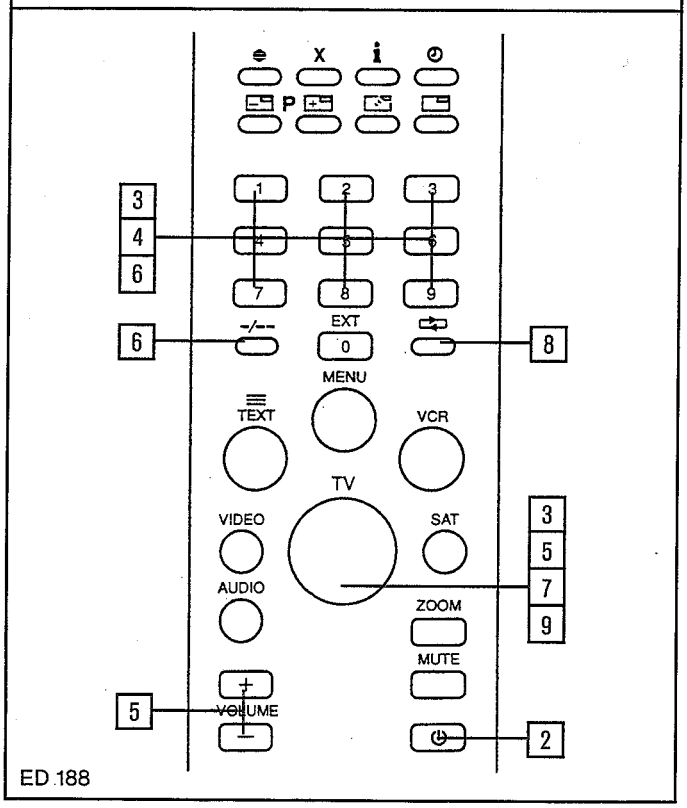
[10] Connect the mains lead of the set to a power socket with 220/240 V alternating current.

## Magnetic-field switch (with 9291, 8291)

Depending on where your set is installed, (Northern, Central or Southern Europe), the Earth's magnetic field may influence the image orientation on large-size screens.

[11] After you have started the set up (compare page 10), use the changeover switch [11] to adjust for optimum image orientation in FILM FORMAT.

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# Switching the set on and off

## Using the mains switch

[1] To switch the set on, press the mains button. The display will show 1.

When you press the mains button once more, the set is switched off again, thus interrupting the power supply to the set. This is particularly recommended

- if you leave the set unsupervised for a lengthy period of time;
- for demagnetizing the picture tube if colour alterations should occur after Step [3].
  Leave the set switched off for approx. 15 minutes before you switch it on again.

## Using the remote control

[2] Use button ⏻ to switch the set off into standby mode. The display will show –.

[3] The set can be switched on again from standby mode using one of the numbered buttons or the **TV** button.
When you press the **TV** button, you will be returned to the program memory location last selected.

For daily operation, these steps [2] and [3] will suffice.

## Automatic switchoff into standby mode

Approx. 10 minutes after closedown of the TV program selected, the set will switch itself off automatically into standby mode.

## Selecting the menu language

After you have switched the set on for the first time, a listing of the menu languages available will appear on the screen, Menu **1**.

[4] To store the language you want in memory, press on the appropriate numbered button **1** – **0**, e.g. press **3** for ENGLISH. After you have done so, the listing will disappear.

[!] It is not possible to perform any further operating steps (apart from Steps [1] – [3] and volume adjustment) until you have first performed Step [4].

# Daily operation

Your dealer will certainly have already performed all the programming operations required.
**If not, please first carry out the operating steps as listed on pages 24-27, or 24-29.**

## Adjusting the volume

5 Press button **TV** ← or →.
Or:
Press button **VOLUME** + or -, or ◢ + or -.

A scale on the screen will show the current volume setting while you are adjusting it (on-screen display **5**).

! These volume functions are also operative with any menus displayed on screen, but then without the volume scale display.

## Program selection 6 7 8

This set possesses 100 program memory locations for the various TV and cable TV programs, and for the EXT and VIDEO AUDIO sockets.
For the functions of the different memory locations, please read page 25.
You will see the program numbers selected at the control panel display and in on-screen displays lighting up briefly.

## Selecting the program memory location

6 Use the numbered buttons **0...9** to select the program memory locations.
Before changing over from one- to two-digit program numbers (and vice versa), first press button **-/--**.
To select program memory locations for external sets, press the **EXT** button (repeatedly if necessary).

## Switching through the program memory locations

7 Use button **TV** ↑ on the remote control or button **P** △ at the set to switch through the program memory locations in ascending order from 1...95-96-AV-E3-E2-E1-1-2..., and use button **TV** ↓ or **P** ▽ to switch through them in the reverse sequence. When you keep one of these buttons depressed, the set switches through the program memory locations continuously.

! If the set has been appropriately programmed, all unused program memory locations are skipped during switch-through.

## Changing to the program memory location previously selected

You will find it very easy to switch back and forth between a previously selected program memory location (e.g. 4) and the program memory location you are currently using (e.g. 12).

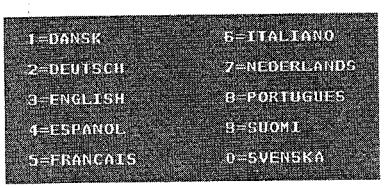
8 To change, press button ⇄ in each case.

## Calling up the on-screen display

9 Press button **TV** ●.

The on-screen display will briefly show TV or EXT (or SAT), the name of the station concerned, plus (with stereo programs) STEREO, and SOUND 1 or SOUND 2 for dual-language programs (on-screen displays **2** – **4**).
Pressing this button will simultaneously return you to the picture default settings (compare page 15).

1

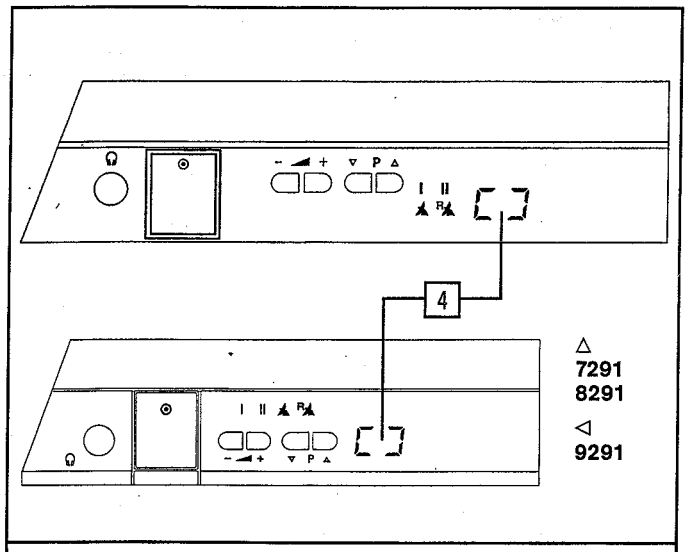


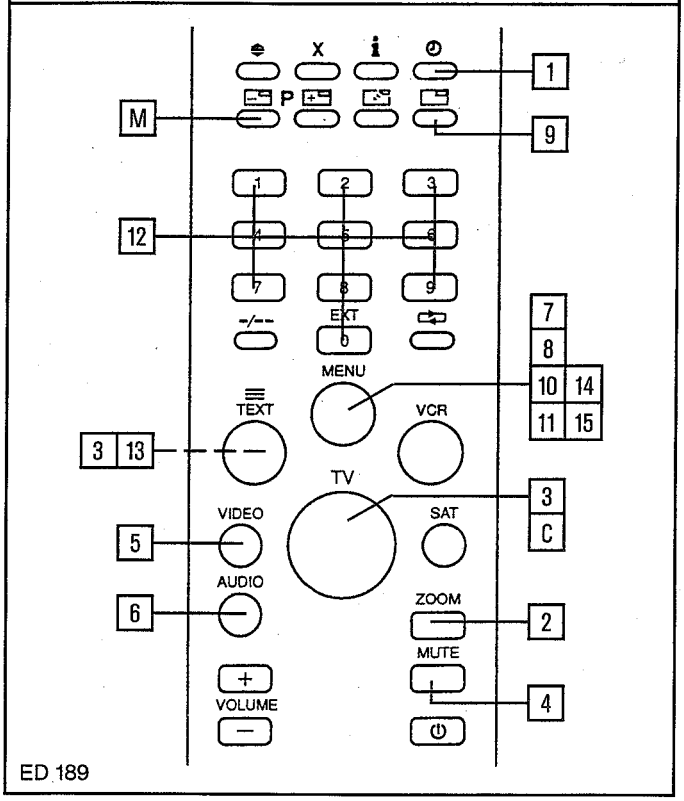

2

3

4

5

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## Calling up the time

This function is operative in TV operating mode if the TV station in question is also broadcasting a text program.

1 To call up the time and to fade it out again (On-screen display **1**), press button ⏲ in each case.

## Zooming the picture

You can switch the full-screen film format over to the conventional 4:3 format.

2 To switch over, press the **ZOOM** button once and to enlarge again to film format, press the **ZOOM** button once more. You will see one of the two on-screen displays.

1 After you have switched the set on, the screen usually shows the film format. You can, however, also store the conventional 4:3 format as the default setting.

▷ page 17

## Fading out TELETEXT subtitles

If you have programmed a page with subtitles as the first preferred page in TELETEXT operating mode (compare page 34), then in TV mode all subtitles being broadcast synchronously with a TV program will be automatically displayed on screen.

3 To fade out these subtitles, press button **TV** ●.
If you want to see the subtitle again, make the on-screen display re-appear by pressing button ≡ **TEXT** ●.

## Switching off the loudspeakers

4 You can use the MUTE button to switch sound reproduction via the loudspeakers on and off.
*[ ]* in the display indicates that this feature is switched off.

1

15:12:30

2

1=DANSK
2=DEUTSCH
3=ENGLISH
4=ESPANOL
5=FRANCAIS
6=ITALIANO
7=NEDERLANDS
8=PORTUGUES
9=SUOMI
0=SVENSKA

401

# Notes on menu-prompted operation

All programming functions, plus many operating functions, can be performed quickly and easily on the screen, using the menus.

## Menu-prompted operating steps

Menus are called up as follows:

1. Using the round TV MOUSE buttons.
2. Using the coloured buttons, provided that a colour in the menu footer line offers this option.

The most important menu selections serve to trigger the following functions:

[5] Picture adjustments using button **VIDEO** ●, Menu **3**,
[6] sound adjustments using button **AUDIO** ●, Menu **4**,
[7] calling up the INDEX using button **MENU** ●, Menu **5**:
[a] for selecting a television program
or
[b] for calling up programming functions using the **blue** button, Menu **6**.

## Altering the menu language

Once you have selected the menu language, you can subsequently alter it by performing the following steps.

[8] Use the **MENU** ● TV MOUSE button to call up Menu **5**.
[9] Press the **blue** button. Menu **6** will appear.
[10] Use **MENU** ↑ ↓ to select the DK/D/GB/E/F/I/NL/P/SF/S function.
[11] Press button **MENU** ← or →. Menu **2** will appear.
[12] Press the numbered button for the language desired. The menu will disappear.

## Menu colours

Should the menu colour be yellow instead of blue, and should the colours in the bottom line of the menu not be red/green/yellow/blue (corresponding to the coloured buttons on your remote control), then the colour representation has been reversed in text mode (compare [19] on page 39).
If this happens, please press the following buttons one after the other:

[C] **TV** ●
[13] **TEXT** ●
[14] **MENU** ●
[15] **MENU** ←
[C] 2 times **TV** ●

## Storing settings

[M] When the red field in the menu footer line shows **M** in white, this means you can use the **red** button to store the settings visible in the menus permanently in memory.

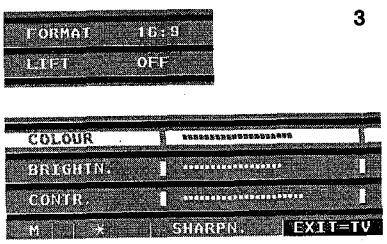
[!] Should you forget to store your settings in memory, the setting(s) or programming data in question will be lost after the menu has been erased or the set switched off.

## Erasing menus from the screen

[C] To erase the screen menus, press button **TV** ●.

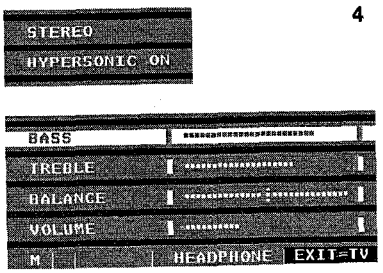
If you do not want to conclude and store in memory a programming procedure you have started, you can quit the menu at any time by pressing the **TV** ● button.

3



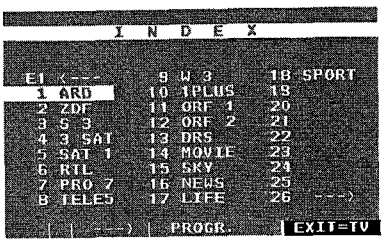

432GB

4



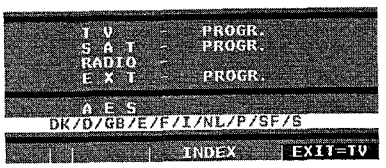

302GB

5

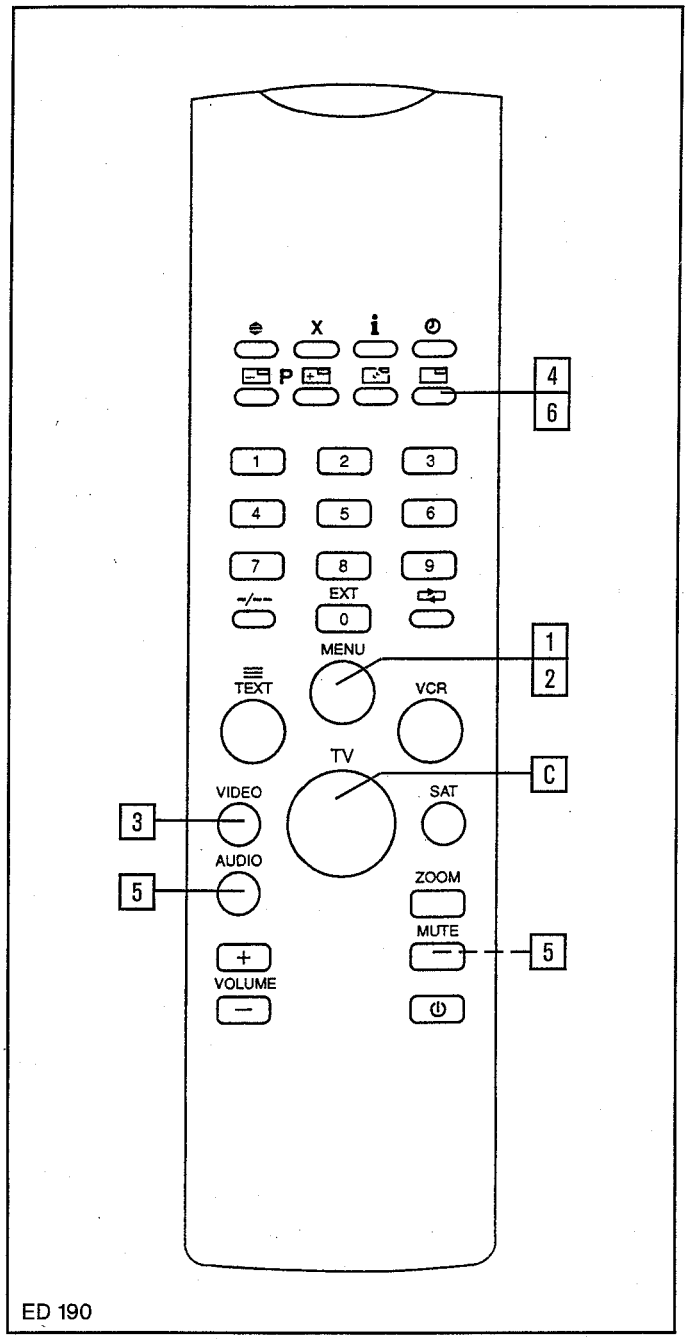



408bD

6




410a




ED 190

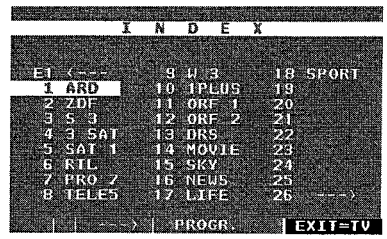
# TV MOUSE control with the menu

## Program selection

If your TV set offers a wide variety of programs, over a cable network, for example, or with a built-in satellite tuner, the index on the screen offers you an immediate overview, and at the same time the option of selecting programs extremely quickly.

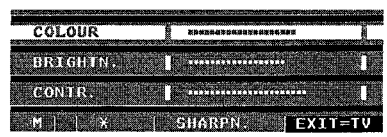
1 Use the **MENU** ● button to call up the INDEX menu, Menu **1**.

2 Move the cursor to the name of the station you want with button **MENU** ← → and ↓ ↑.
After only a few moments of waiting time, picture and sound of the program selected will automatically appear.




1

408bD

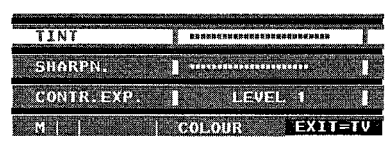



2

432GB

3a

404GB




3b

424GB

The INDEX consists of four menu pages.

[!] To browse in the pages, move the cursor to the field --› or ‹--, or enter a program number from the other menu page directly using the numbered buttons, or browse through the INDEX pages with the **yellow** button.

[C] Use the **TV** ● button to erase the menu from the screen.

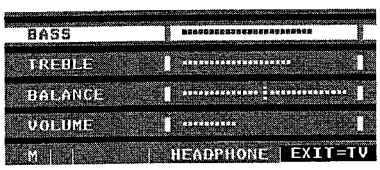
## Adjusting picture and sound

[3] Use the **VIDEO** ● button to call up Menu **2** for the picture adjustments.

[4] If necessary, change over between Menus **3** and **2** using the **blue** button.
In NTSC operation, Menu **3b** will appear.

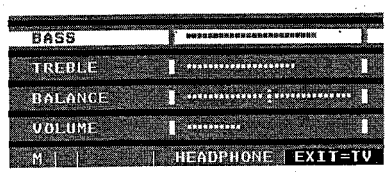
[5] Use the **AUDIO** ● button to call up Menu **4** for the sound settings.

[!] Pressing the **MUTE** button will cause the system to change automatically from Menu **4** to Menu **5**.




4a

302GB




4b

324GB

5

403GB

[6] If necessary, change over between Adjustment Menu **5** for earphones reproduction and Menu **4** for loudspeaker reproduction, using the **blue** button.

[!] Step [6] produces individualized volume settings for the earphones and the audio signal at the **AUDIO** output sockets **2**, but does not affect the volume for playback via the loudspeakers.

In the TV MOUSE directions ← → and ↓ ↑, the following options for settings and selections are provided:

| Picture settings | Menu | Sound settings | Menu |
|---|---|---|---|
| [3] Format | **2** | [5] Basses | **4** |
| [3] Lift | **2** | [5] Trebles | **4** |
| [3] Colour intensity | **2** | [5] Stereo balance | **4** |
| [3] Brightness | **2** | [5] [6] Volume | **4, 5** |
| [3] Contrast | **2** | [5] [6] Stereo, mono or dual-language reproduction, with NICAM operation digital channel | **4a, 4b, 5** |
| [4] Contour definition | **3** | | |
| [4] Contrast expander | **3** | | |
| [4] Hue (in NTSC mode) | **3b** | [5] Hypersonic reproduction on or off | **4** |

[!] When you are receiving a mono program, where no change in setting is possible, the MONO menu line (Menu **4b**) cannot of course be selected.

## Default settings

Settings [3] – [6] have each been programmed to a default value in the factory.

### Returning to the default settings

If during daily operation you have altered one of the picture settings [3] or [4], you can quickly return to the preprogrammed default value by pressing the **TV** ● button.
When you are in the menu, TELETEXT or PIP/POP mode, you must press button **TV** ● twice.

### Altering default settings

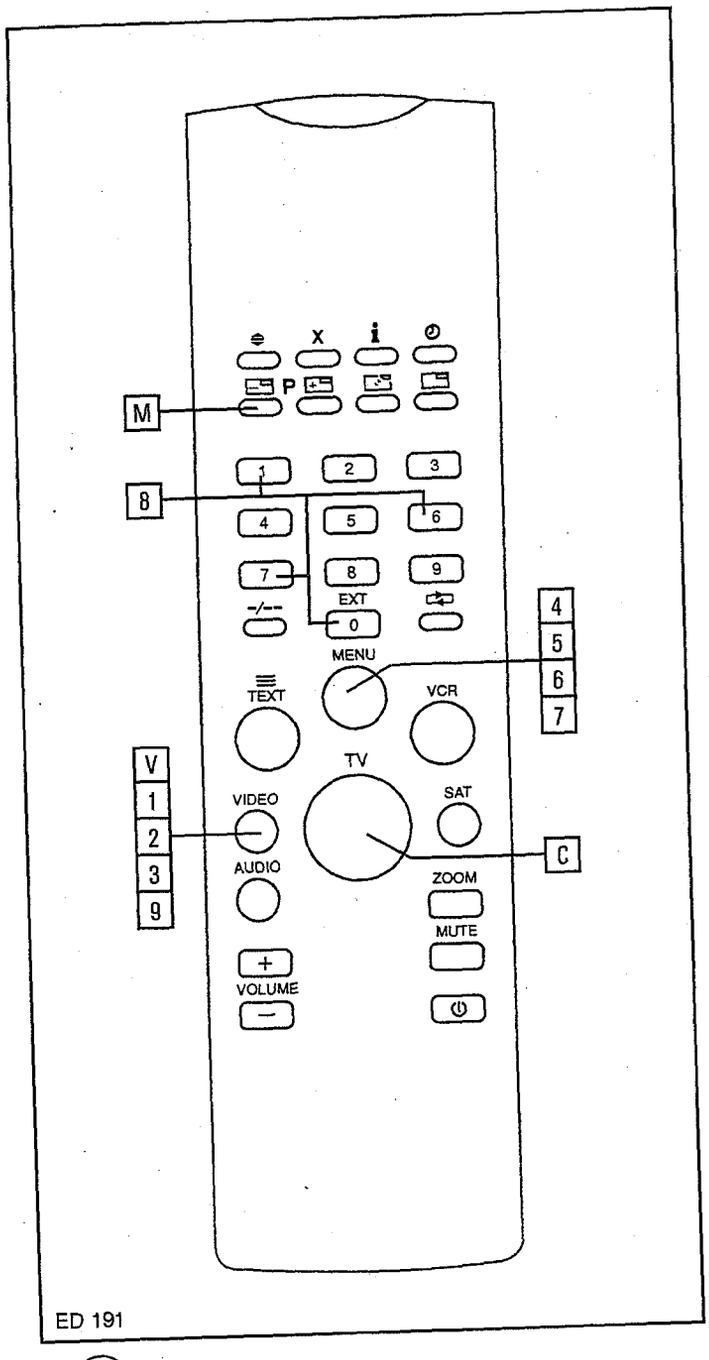
If any of the default settings does not correspond to your wishes, you can alter it as follows:

☐ Perform a picture adjustment procedure [3] or [4], and use the **red** button to store the new default setting in memory.

☐ Perform a sound adjustment procedure [5] or [6], and use the **red** button to store the new default setting in memory.

[C] To erase the menu from the screen, press button **TV** ●.

[!] These default settings act in the same way for all program memories. For how to perform individualized corrections, please read page 17.



ED 191

# Picture reproduction

V For Operating Steps 1 – 3, use the **VIDEO** ● buttons to call up Menu **1**.

## Contrast expander

This function serves to improve the contrast in dark image sections, e.g. in old black-and-white films.

1 Use the **VIDEO** ↑ ↓ button to move the cursor (after step V) to the CONTR. EXP line, and use ← → to select between the three contrast setting options NORMAL, LEVEL 1 and LEVEL 2, Menu **2**.

C Use **TV** ● to erase the menu from the screen.

! After you have changed programs or switched the set off, the set will return to the NORMAL value.

## Selecting the 16:9 picture format

The set will switch over automatically to the 16:9 format when it detects a 16:9 transmission. However, you can also switch over the format yourself.

2 In Menu **1a**, use the **VIDEO** ↑ ↓ button to move the cursor to the FORMAT menu line, and then use ← → to select between the 16:9 picture format
or
the 4:3 picture format.

! You cannot store the format selection in memory.

## Lifting the 4:3 wide picture

You can lift the wide picture, e.g. for reading subtitles.

3 Use button **VIDEO** ↑ ↓ to move the cursor to the LIFT menu line in Menu **1b**, and use ← → to select LIFT ON for lifting the picture
and
LIFT OFF for cancelling the lift function.
After you have switched on the set, the lift function is switched off.

## Individualized settings

The values set for colour, brightness, contrast and volume can be altered in *every* program memory location by not more than +/- 12 %, and thus be individually adapted to different requirements.

4 Use button **MENU** ● to call up the INDEX menu and then the **blue** button to call up the function menu (Menu **3**).

5 Use the **MENU** ↑ ↓ button to move the cursor to the AES menu line, and use ← → to call up the adjustment menu (Menu **4**).

6 Use the **MENU** ← → button or the numbered buttons to select the program memory location you want.

7 Use the **MENU** ↑ ↓ button to select the adjustment function you want in each case, and use ← → for any adjustment corrections.

M To store your individualized settings in memory, press the **red** button.

R For every desired program memory location, repeat steps 6, 7 and M.

C To erase the menu from the screen, press button **TV** ●.

! Even in those program memory locations for which you have programmed individualized settings, Menus **2** and **4** on pages 14/15 will continue to show the settings valid for *all* program memory locations.

## Storing the conventional picture format

If you have switched on the conventional 4:3 picture format by means of the **ZOOM** button, you can store it in memory as the default setting.

☐ Perform step 4.

8 Use the **numbered** buttons to enter (within 4 seconds after you have called up Menu **3**) the following sequence of figures in step 4:
1 6 7 0

Menu **3** will disappear. Instead, you will see a single menu line with the picture format switched on, e.g. Menu **5**.

R In the same way, you can (after pressing the **ZOOM** button) store a wide picture again.

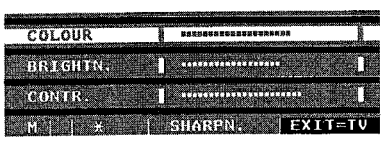
## Grey-step selection with the 4:3 picture

If you have switched on the conventional 4:3 picture format by means of the ZOOM button, you can vary the grey tone next to the picture to suit your own personal taste.

☐ Perform Step V. The menu will show the SIDES line (Menu **1a**).

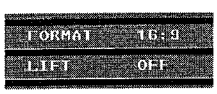
9 Use the **VIDEO** ↑ ↓ button to move the cursor to this line, and use ← → to select between grey steps
GREY 1, GREY 2, GREY 3 or BLACK.

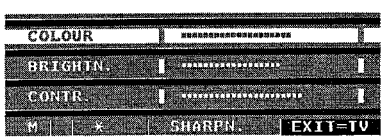
1a




437GB

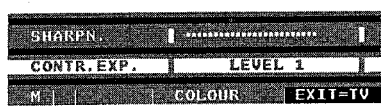
1b



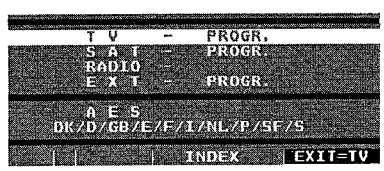

432GB

2



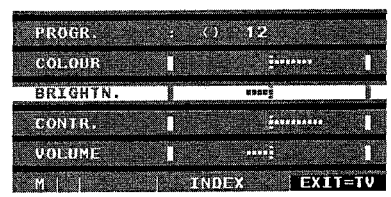

433GB

3




428a

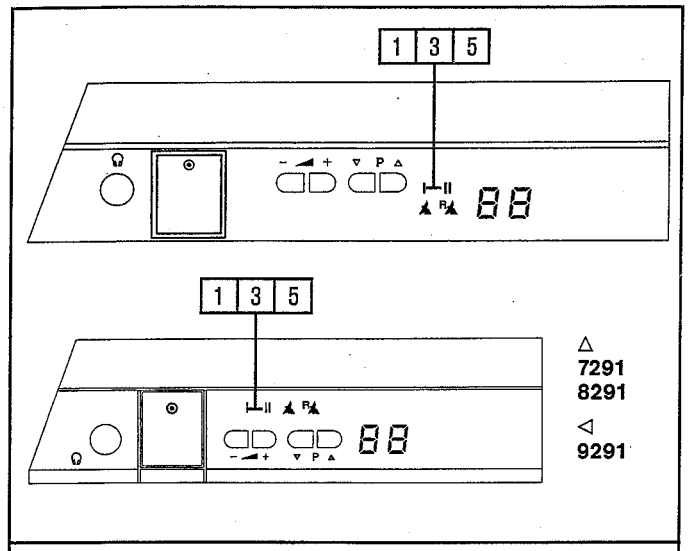
4

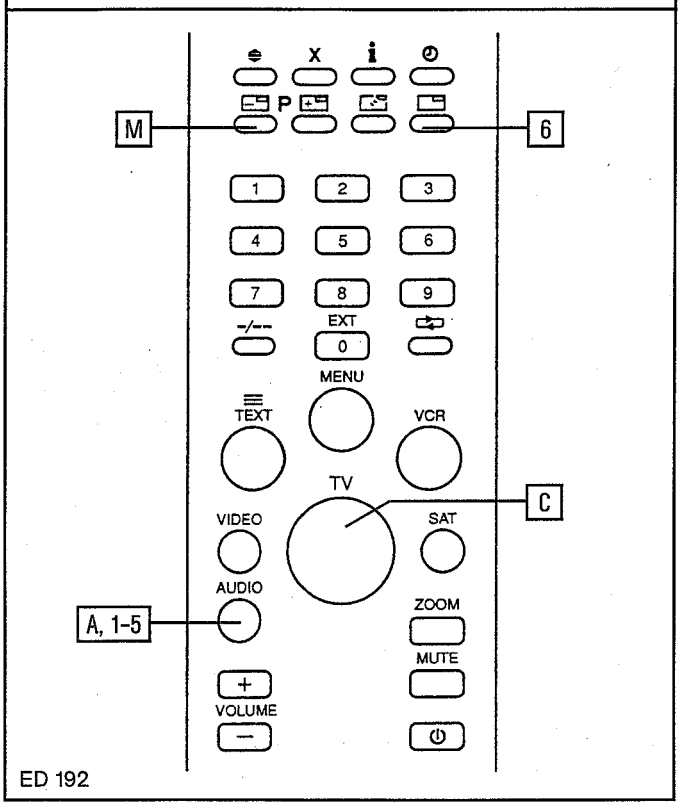



402GB

5

434D




ED 192

# Sound reproduction

[A] For Operating Steps [1] – [6], use the **AUDIO** ● buttons to call up Menus **1 – 6**.

## Stereo/mono reproduction

In the case of programs with stereo sound, the control-panel displays **I** and **II** are lit up; with mono programs, they are not. When you have called up the program on-screen display, STEREO will appear after a time-delay if the program concerned is a stereo one.

For stereo reproduction, it is essential that the reception signal be strong and undistorted. If stereo reproduction quality is unsatisfactory, we recommend switching over to mono reproduction.

Depending on the program concerned, the audio menu will show STEREO or MONO.

[1] Guide the cursor after step [A], using the **AUDIO** ↑ ↓ buttons, into the STEREO menu line, and use → ← to select the MONO or STEREO setting, Menus **1** and **2**.

[!] In the mono setting, the menu display will change to MONO!

[M] You can store the MONO ! setting permanently in memory with the **red** button.

[R] Use steps [1] **and** [M] to cancel the constrained mono setting for stereo programs.

[C] Use the **TV** ● button to erase the menu from the screen.

## Hypersonic

The hypersonic setting for a spatial sound effect is erased when the set is switched off.

[2] Guide the cursor after step [A], using the **AUDIO** ↑ ↓ buttons, into the HYPERSONIC menu line, and use ← → to select between the OFF and ON settings, Menu **2**.

[C] Use the **TV** ● button to erase the menu from the screen.

## Dual-language program

With programs of this type, the sound is being broadcast over two different channels in different languages, e.g. in the film's original language and in the dubbed language as well.

The program on-screen display when called up will show – after a time-delay – SOUND 1 or SOUND 2.

[3] Guide the cursor after step [A], using the **AUDIO** ↑ ↓ buttons, into the top menu line, and use ← → to select the audio channel you want, SOUND 2, Menus **3** and **4**.

[!] You will obtain language channel 1 with the MONO ! setting.

[M] Use the **red** button to store the setting in memory if required.

[C] Use the **TV** ● button to erase the menu from the screen.

[!] If you want to erase the setting from memory, repeat steps [3], - [M] and [C] above.

## NICAM system

In some countries and/or with some stations, the television sound is broadcast using the digital NICAM system, instead of with the conventional analog stereo sound system (A2).

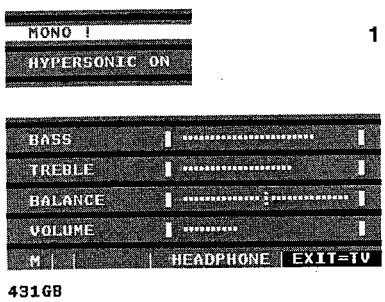
[!] The NICAM sound may be disturbed by hissing or crackling noise due to the station signal being too weak. This interference can be eliminated by switching over from NICAM to analog FM mono reproduction.

[4] Move the cursor to the top line in it STEREO DIGITAL, Menu **5**, using button **AUDIO** ↑ ↓.

[5] Use button **AUDIO** ← → to select the desired reproduction mode for the type of program being broadcast in each case.

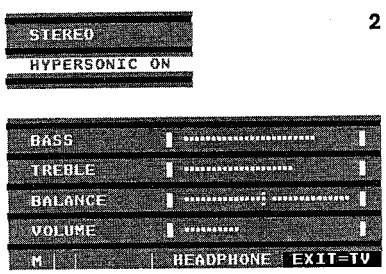
[6] For earphones mode, use the **blue** button to call up the earphones menu (Menu **6**), and perform the appropriate Steps - [4] and [5].

[!] After you have changed programs, the set will automatically return to the original function, e.g. STEREO DIGITAL with NICAM stereo programs, or to SOUND I DIGITAL with NICAM dual-language programs.



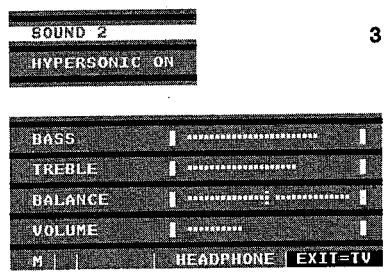

1

431GB



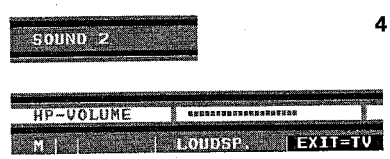

2

425GB



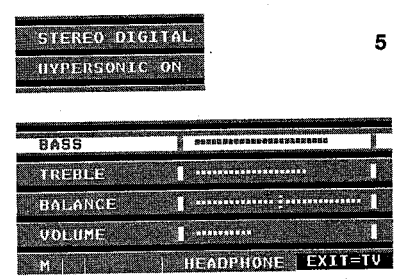

3

426GB



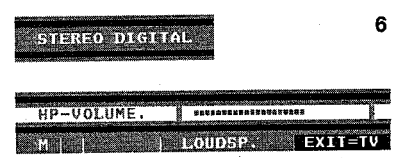

4

403GB



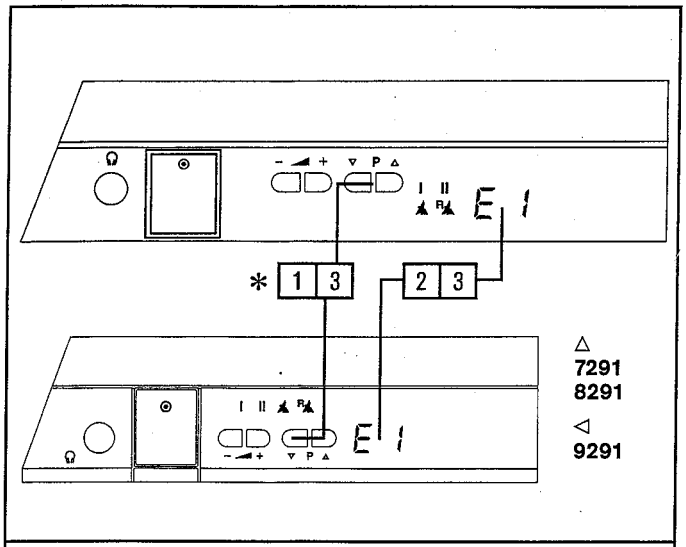

5

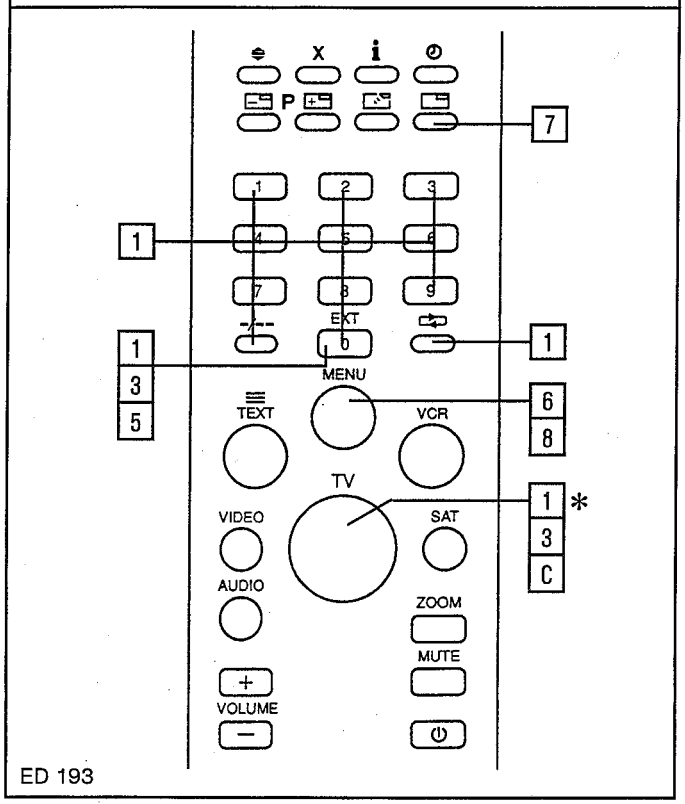
314GB




6

418GB

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# Video recorder operation

## Playback via the aerial socket

It is essential that one of the program memory locations has been prepared for this operating mode. See instructions on Page 30.

[1]* Use the -/-- buttons and the numbered buttons to select the video program memory location, e.g. 96. There may now be a picture on the TV screen being received by the video recorder.

[S] Start recorder playback.

After you have stopped playback, the screen may again show the TV picture being received by the video recorder.

[!] You can use button ⇨ to switch back and forth between the program last received by the TV set and the video program memory location.

## Playback via the AV sockets

There are two customary kinds of recorder, with different functions and operating requirements:
- with automatic TV/AV switchover, [2],
- without automatic TV/AV switchover, [3].

This automatic feature can be switched on or off with some video recorders.

If the picture is not reproduced in colour, reprogram the TV standard of the EXT socket in question, cf. page 31.

## Automatic TV/AV switch-over

from TV reception to AV operating mode

[2] This function is only operative if you connect the recorder to the EXT **1** socket.

[S] Start recorder playback. The video recorder supplies a switching voltage at start of playback, which switches the television set automatically over from TV reception to the video program.

[!] You can use the ⇨ button to switch back and forth between the TV program last selected and the ongoing video playback.

## Selecting the EXT and AV inputs

[3]* Press the **EXT** button repeatedly until one of the following video channel memories is reached:

E1 for a video recorder connected to the EXT **1** socket which works **without** automatic TV/AV switchover.

E1 for a set with RGB signal connected to the EXT **1** socket.

E2 for a standard or S-VHS video recorder connected to the EXT **2** socket.

E3 for a standard or S-VHS video recorder connected to the EXT **3** socket.

E1, E2, E3 for monitoring the TV picture being received by any video recorder connected to the EXT socket.

AV for a camcorder or video recorder connected to the **AV** sockets.

[S] Start recorder playback.

[1] You can use button ⇨ to switch back and forth between the TV program last selected and the current video program.

✳ You can also access all AV program memories with the TV MOUSE button **TV** ↓ ↑ on the remote control or with buttons ▲ and ▼ at the set.

▢ In the position of Steps [1] and [3], you can watch on the TV screen all recording preparations at the video recorder, irrespective of whether you are selecting TV programs to be recorded by the video recorder tuner or whether you are preparing camera recordings, for example.

## Connections for recording and playback

The diagram shows the internal connections available for recording and playback with this set, e.g. the TV program at sockets EXT **1** and EXT **3**.

The numbers in the diagram have the following meanings:

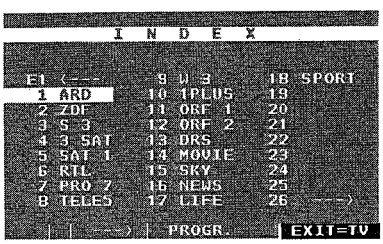
① = fixed connection, depending on the EXT MAC selection.

② = switchable connection, depending on the program selected.

③ = switchable connection, depending on the recording selected.

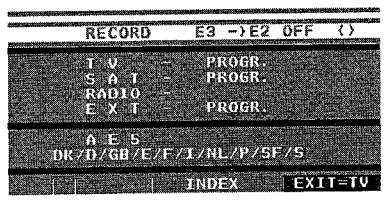
④ = switchable connection, depending on the recording selected. With recording protection feature. Also operative in the standby position.

1




408bD

2




438GB

## Transcopying procedures

[4] Connect the video recorder which you are going to use to record with to the EXT **2** socket, and switch it to its EXT or AV position.

▢ Select the AV source you want to use for recording:
In the basic position, the **AV** sockets are operative.
If you want a video recorder which is connected to the EXT **3** socket to become operative as the AV source, you must switch it on as follows:

[5] Use the **EXT** button to select program memory location EXT **3**.

[6] Use the **MENU** ● button to call up the INDEX menu (Menu **1**).

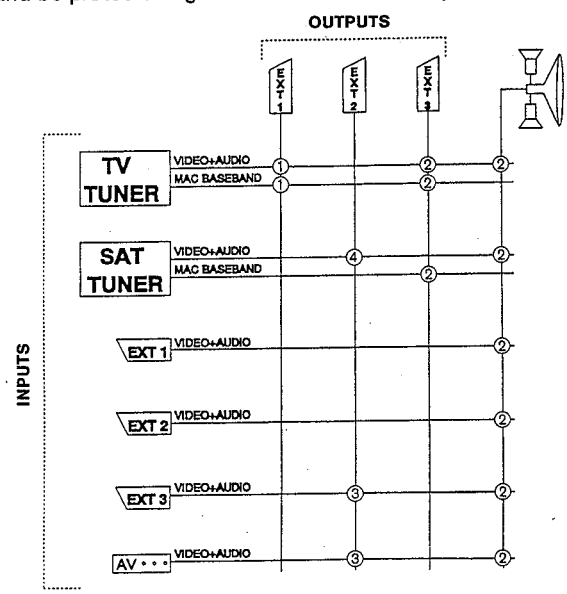
[7] Use the **blue** button to call up the programming menu. The cursor is in the RECORD line (Menu **2**).

[8] Use the **MENU** ← → button to select the ON position.

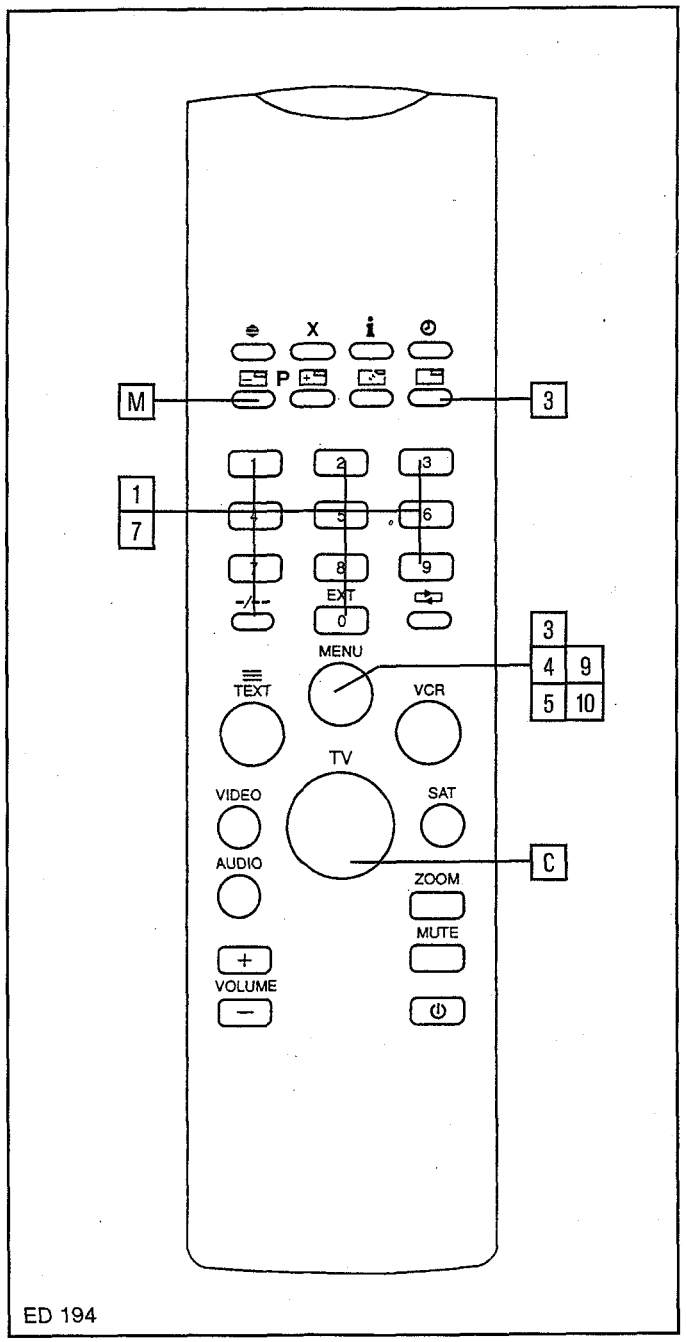
[C] If necessary, erase the menu from the screen using button **TV** ●.

[!] This source selection is operative for as long as the set is switched on. If you want to switch the EXT **3** socket off again prematurely as the AV source, select the OFF position in Step [8].

[!] If a satellite receiver has been installed, then its selected program (as per satellite operating instructions) can be switched on as the signal source for recording via the EXT **2** socket and be protected against unintentional re-adjustment.




| | | | |
|---|---|---|---|
| **Video code** | yes | yes | yes |
| **16:9 code** | yes | yes | yes |
| **Basic position** | TV | AV | SAT |




ED 194

## D2MAC operating mode

Programs in the 16:9 format can be transmitted in the following ways:

- from a video source
- via a cable MAC network
- via satellite on D2MAC stations.

Satellite reception is possible with a built-in or an external satellite receiver.
Both with cable MAC and satellite reception, it is necessary to operate an additional D2MAC decoder, e.g. type **5915**.

**Connections**

You will find one connection diagram for each of the following connection examples on pages I and II of the appendix.

**Cable Mac:**

| TV set | Additional set |
|---|---|
| EXT **1** | Scart TV at the **5915** |
| EXT **3** | Scart VIDEO at the **5915** |
| EXT **2** | Scart at the video recorder |

**With built-in satellite receiver:**

| TV set | Additional set |
|---|---|
| **Video out*** | BASEB. IN |
| EXT **1** | Scart TV at the **5915** |
| EXT **3** | Scart VIDEO at the **5915** |
| EXT **2** | Scart at the video recorder |

* at the built-in satellite receiver

### Operating the set with the cable MAC network

1 Select the program memory location with the desired cable MAC program.

2 Switch on the D2MAC decoder.

3 Call up the following menus:
Menu **1** with the **MENU** ● button,
Menu **2** with the **blue** button,
Menu **3** with the **MENU** ← → button.

4 Use the **MENU** ↓ button to move the cursor to the SIGNAL PATH line, and select setting E3>DEC>E3 with ← →.

5 Use the **MENU** ↓ button to move the cursor further to the COLOUR STANDARD line, and select the MAC-EXT setting with → ←.

M Use the **red** button to store this preselection in memory.

C Erase the menu from the screen with the **TV** ● button.

6 At the D2MAC decoder **5915**, set the following:
deemphasis position MAC corr. (correction via the MAC deemphasis filter) for the baseband signal.

Position 3 for sharpness setting, preferably for 16:9 operation.

! If the decoder does not switch over automatically between 16:9 and 4:3 formats (or vice versa), you must perform this switch-over procedure manually as described on page 16.

### Operation with a built-in satellite receiver

7 Select that satellite program memory location which has been prepared for D2MAC stations as per satellite operating instructions.

8 Switch on the D2MAC decoder.

9 Call up the following menus:
Menu **1** with the **MENU** ● button,
Menu **2** with the **blue** button,
Menu **4** with the **MENU** ↓ button in the SAT-PROG line, and then ← →.

10 Use the **MENU** ↓ button to move the cursor to the SIGNAL PATH line, and select setting E3>DEC>E3 with ← →.

M Use the **red** button to store this preselection in memory.

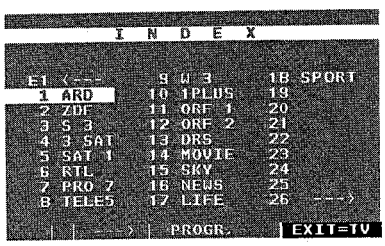
11 At the D2MAC decoder **5915**, set the following:
deemphasis position MAC corr. (correction via the MAC deemphasis filter) for the baseband signal.

The 16:9 picture format.

Position 3 for sharpness setting, preferably for 16:9 operation.

! If switch-over between 16:9 and 4:3 formats (or vice versa) is not performed automatically, you must perform this switch-over procedure manually as described on page 16.

**1**

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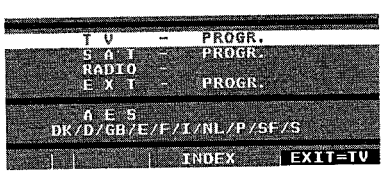
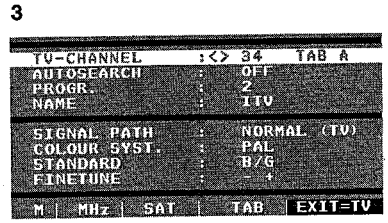
**2**



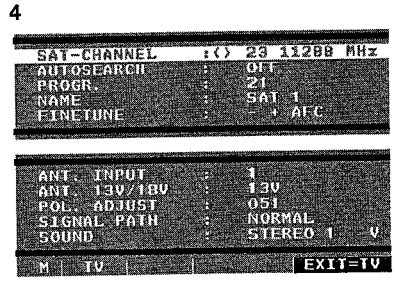

428a

**3**

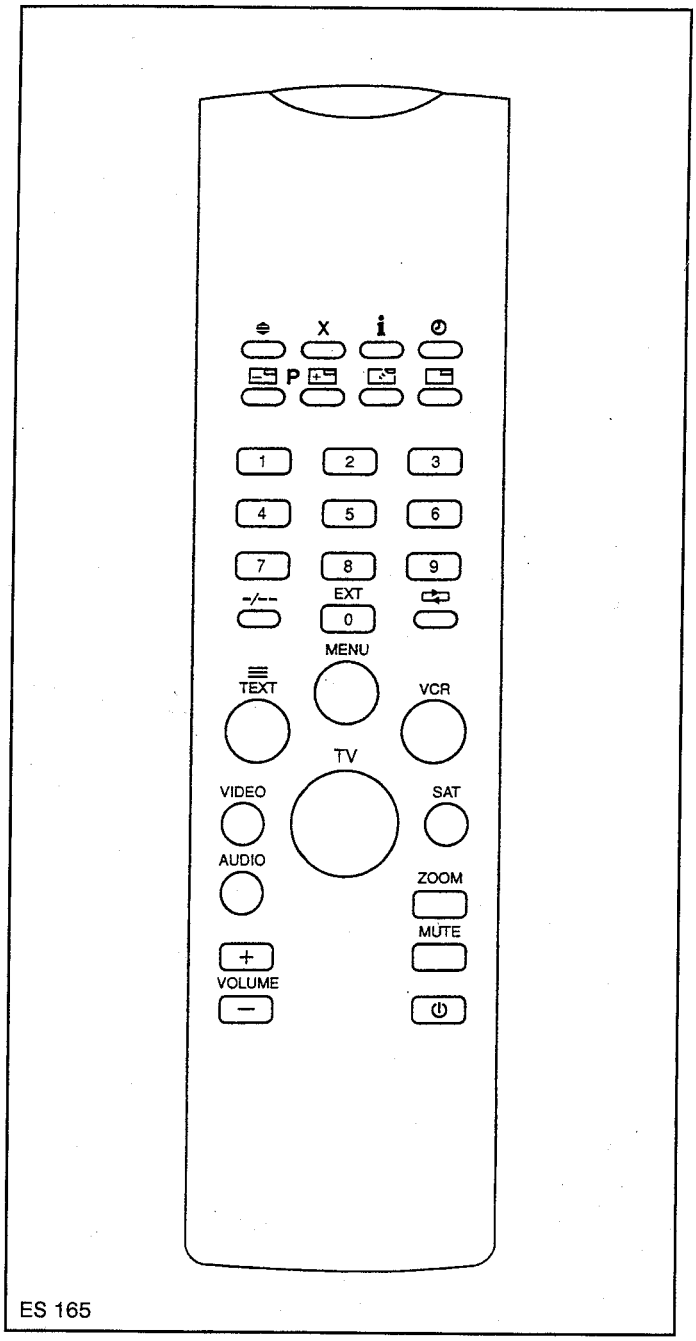



405GB

**4**


SAT-CHANNEL :<> 23 11288 MHz
AUTOSEARCH : OFF
PROGR. : 21
NAME : SAT 1
FINETUNE : - + AFC
ANT. INPUT : 1
ANT. 13V/18V : 13V
POL. ADJUST : 051
SIGNAL PATH : NORMAL
SOUND : STEREO 1 V
M TV EXIT=TV

451GB

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# Tuning and storing the stations

This set possesses 100 program memory locations for the various TV and cable TV programs, and for external sets.

Your dealer will tell you which stations and programs can be received in your area.

The stations broadcast their television programs (depending on the region involved) on different channels, to which your set must be tuned. You may receive the same station, for instance, on two or more channels. Always select the channel which ensures optimum picture, sound and text reproduction.

## Programming procedures

### Station selection

During programming, you can select stations in the following different ways:

a) direct selection of a TV channel using the channel number given in the channel tables.

b) direct frequency entry.

c) switching through the channel numbers for TV channels as per channel tables.

d) tuning the reception frequencies.

e) station search function

### Program memory location selection

When your set leaves the factory, the program memory locations may contain information unsuitable for the area where you live and of no significance for you.

During programming, you must assign the stations selected to a program memory location of your choice in each case, and store them in memory, e.g.

the first program on program memory location 1,
the second program on program memory location 2,
etc.

## Channel tables

With station selection a), the TV channels must be called up using channel tables, and stored in the program memory location you want.

The large number of TV channels is distributed among two channel tables, between which you can switch back and forth. Table **A** contains mostly conventional TV channels, while Table **B** contains special and cable TV channels.

- The channel tables can be selected in Step 2 on page 26.
- To select channels, please use only the channel numbers given in column 2 of the adjacent tables.
- Please enter all **channel numbers from table column 2 in two-digit form**.
- After being stored in memory, channel number and channel table always apply only to the program memory location currently switched on.

You will find a complete overview of all channel numbers of the channel tables at the end of this manual.

## Program memory locations and their functions

| | |
|---|---|
| 1 – 49 | TV programs suitable for four preferred text pages. |
| 50 – 95 | TV programs; it is not possible to store preferred text pages in memory. |
| 96 | for video recorder operation via the aerial socket. |
| 97 = AV<br>98 = E3<br>99 = E2<br>0 = E1 | e.g. for camcorder<br>for standard or S-VHS video recorder<br>for standard or S-VHS video recorder<br>for standard video recorder or RGB signal source. |

- Please use memory locations 1-49 preferably for TV stations which are also broadcasting a text program.
- If your set is also retrofitted with a satellite tuner, memory locations 20-59 have been preprogrammed for satellite channels (ASTRA 1A/1B).

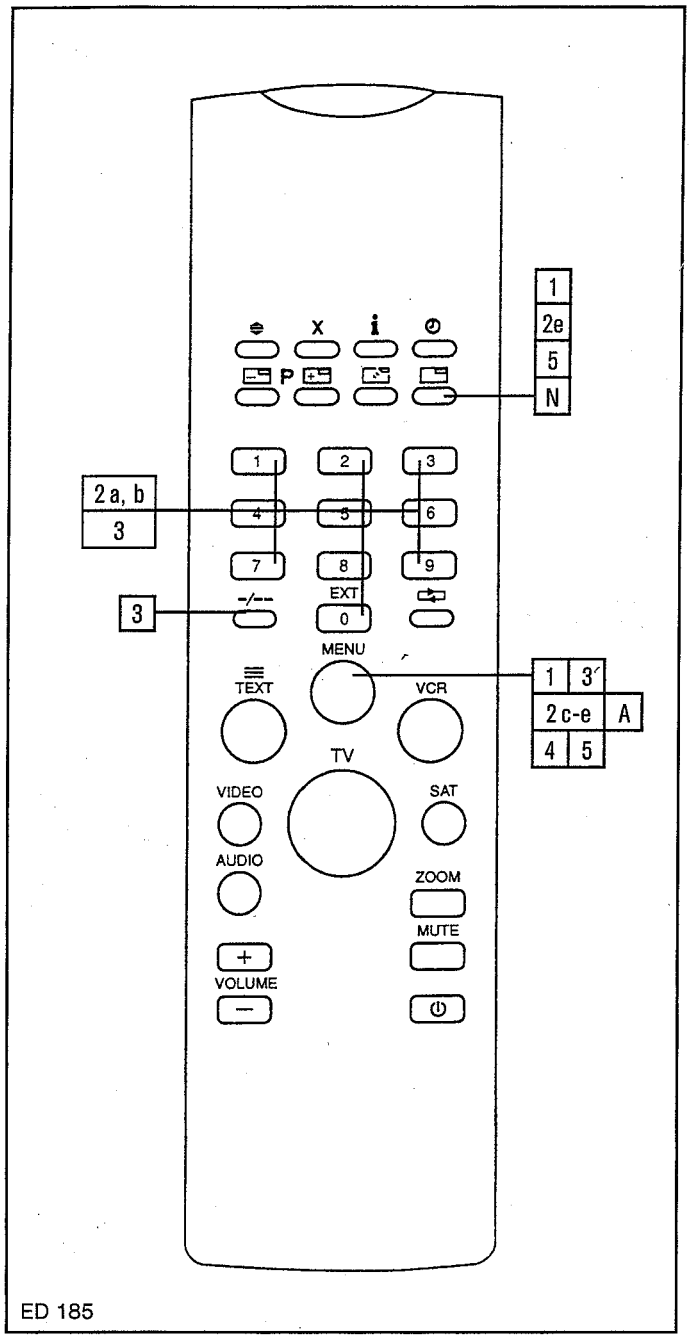
### Table A

| 1 | 2 | 3 |
|---|---|---|
| Channel designation | Channel-number | Transmission frequency (MHz) |
| 2 (E2) | 02 | 48.25 I |
| 3 (E3) | 03 | 55.25 I |
| 4 (E4) | 04 | 62.25 I |
| 5 (E5) | 05 | 175.25 III |
| 6 (E6) | 06 | 182.25 III |
| 7 (E7) | 07 | 189.25 III |
| 8 (E8) | 08 | 196.25 III |
| 9 (E9) | 09 | 203.25 III |
| 10 (E10) | 10 | 210.25 III |
| 11 (E11) | 11 | 217.25 III |
| 12 (E12) | 12 | 224.25 III |
| A | 13 | 53.75 I |
| B | 14 | 62.25 I |
| C | 15 | 82.25 I |
| D | 16 | 175.25 III |
| E (I) | 17 | 183.25 III |
| F | 18 | 192.25 III |
| G | 19 | 201.25 III |
| H | 20 | 210.25 III |
| H1 | 11 | 217.25 III |
| H2 | 12 | 224.25 III |
| 21 | 21 | 471.25 U |
| ↓ | ↓ | ↓ |
| ↓ | ↓ | 8 MHz |
| ↓ | ↓ | ↓ |
| 69 | 69 | 855.25 U |
| 70 | 70 | 863.25 U |
| — | 97 | 49.25 |
| — (B) | 98 | 56.25 |
| — | 99 | 63.25 |

### Table B

| 1 | 2 | 3 |
|---|---|---|
| Channel designation | Channel-number | Transmission frequency (MHz) |
| S1 | 01 | 105.25 I |
| S2 | 02 | 112.25 III |
| ↓ | ↓ | ↓ |
| ↓ | ↓ | 7 MHz |
| ↓ | ↓ | ↓ |
| S20 | 20 | 294.25 III |
| S21 | 21 | 303.25 H |
| ↓ | ↓ | ↓ |
| ↓ | ↓ | 8 MHz |
| ↓ | ↓ | ↓ |
| S41 | 41 | 463.25 H |
| S22H | 43 | 315.25 |
| S24H | 44 | 339.25 |
| S26H | 45 | 363.25 |
| S28H | 46 | 387.25 |
| S30H | 47 | 411.25 |
| S32H | 48 | 435.25 |
| S34H | 49 | 459.25 |
| — | 50 | 190.25 |
| U1 | 63 | 226.25 III |
| U2 | 64 | 234.25 III |
| U3 | 65 | 242.25 III |
| U4 | 66 | 250.25 III |
| U5 | 67 | 258.25 III |
| — | 68 | 47.25 I |
| — | 69 | 69.25 I |
| — | 70 | 83.25 I |
| M1/7- | 71 | 104.25 |
| ↓ (B) | ↓ | ↓ |
| ↓ | ↓ | 7 MHz |
| ↓ | ↓ | ↓ |
| M10/7 | 80 | 167.25 |
| M1/8 | 81 | 110.25 |
| ↓ | ↓ | ↓ |
| ↓ | ↓ | 8 MHz |
| ↓ | ↓ | ↓ |
| M8/8 | 88 | 166.25 |

ED 200 I = VHF I III = VHF III U = UHF IV/V H = HYPER

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# Programming TV stations

[!] Please do not forget to store your programmed data for every program memory location in memory with Step [8].

[1] Press the **MENU** ● button to call up the INDEX menu, and then press the **blue** button to select the program selection menu, guide the cursor to the line TV-PROGR. using the **MENU** ↑ ↓ button (Menu **1**). Use ← → to call up the programming menu (Menu **2**).

[I] Use this Menu **2** to perform programming procedure [2][a] or [2][c] with *channel numbers*.

[II] For programming procedures with frequency entries or with unknown station data, use the **green** button to call up Menu **3** for a *frequency* tuning procedure in step [2][b] or [2][d].

[!] After step [2][b] or [2][d], you can still select between programming Menus **2** and **3**, using the **green** button.

[2]
[a][b] **With known TV stations:**

[a] Menu **2**
For a known TV station, use the numbered buttons to enter **in two-digit form** the channel number as given in the channel table,
e.g. 10
or 03.

If necessary, select the channel table using the **blue** button.

[b] Menu **3**
For a station with known frequency, enter the frequency number directly **in four-digit form** using the numbered buttons, e.g. 5752 for 575.2 MHz.

[c][d] **In the case of unknown station particulars:**

[c] Menu **2**
For a TV station with an **unknown channel number**, use the **MENU** ← → button to switch through the channel numbers consecutively until picture and sound of the TV program you want appear.

If you keep the button in question depressed, this will cause the set to switch through the numbers fast forwards or backwards.

[d] Menu **3**
Use the **MENU** button to tune through the frequencies of the reception bands, in direction → forwards, in direction ← backwards.
If you keep the **MENU** button depressed longer, the tune-through procedure will be performed faster.
Release the button as soon as the program picture appears.
If necessary, use button **MENU** ← or → to perform a fine tuning procedure to obtain optimum picture and sound reproduction.

[!] This station selection procedure is also necessary if a television station or the modulator of a video recorder, for example, is working *between* the frequency grid printed in the channel tables.

### [e] Station search

When you are programming unknown stations, you can have the reception bands tuned through automatically with the station search function.

Use the **MENU** ↓ button in Menu **3** to guide the cursor into the SEARCH line, and use ← or → to start the search function.

Menu **4** will appear, and will display the reception band currently being tuned through. The scale indicates how the tuning procedure is progressing.

As soon as the station search function has found a station with a sufficiently strong reception signal, it will halt automatically. You can halt it prematurely by pressing the **blue** button.

Every time the search function is halted, Menu **3** will appear again.

You can use the **MENU** ← → button to start the search function again at any time.

### [A] Automatic tuning

After Steps [2][d], [2][e] and [7], the automatic tuning function is switched off.

If a station or a video recorder modulator, for example, is not working stably, this automatic feature can correct minor frequency deviations for optimum tuning.

In Menu **3**, use the **MENU** ↓ button to move the cursor to the AFC line, and then use the **MENU** ← → button to select the ON function for switching automatic tuning on, and the OFF function for switching automatic tuning off.

### Selecting the program memory location

[3] Use the **MENU** ↓ button to switch on to the PROGR. line and
use (button -/-- and) the numbered buttons to enter a program memory location number,
e.g. 2
or -/-- 12,
or select the program numbers with button **MENU** ← or →.

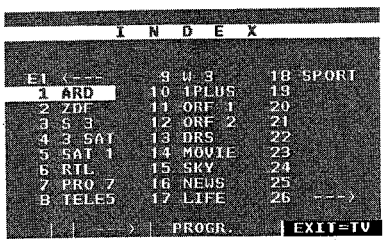
[1] If you do not want to program a name, skip Steps [4] and [5].

### Selecting program names

[4] Use the **MENU** ↓ button to go to NAME, and call up Menu **5** with → or ←.

[5] Guide the cursor to the program name desired, using button **MENU** ↓, ←, → and ↑, and accept this name into the programmed data using the **blue** button.

[N] If you want to erase a name for a program memory location selected, perform only Step [4] and accept this setting into memory by pressing the **blue** button.

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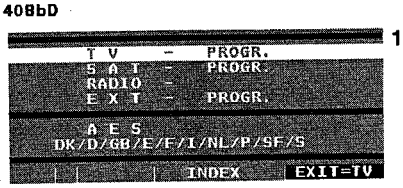
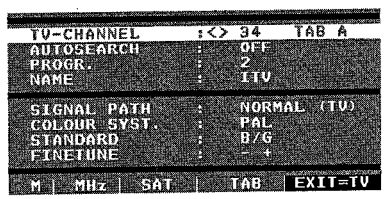
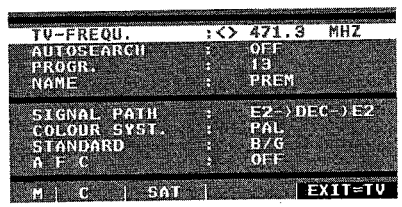



428a

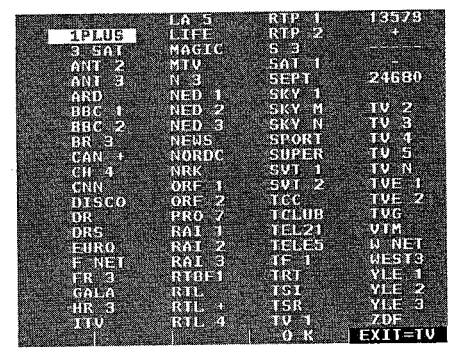



405GB

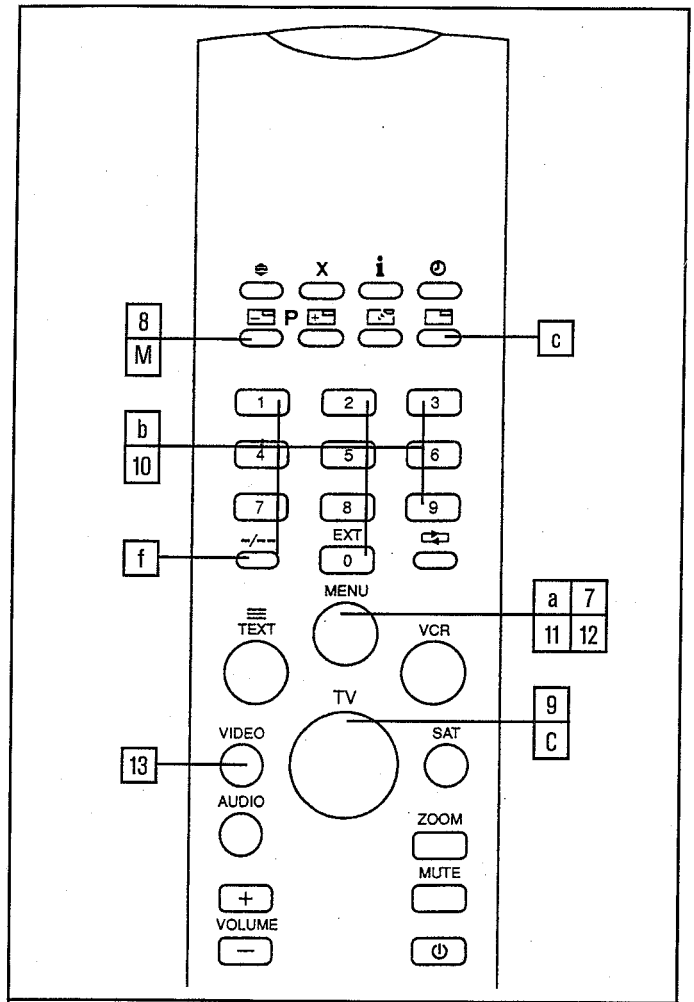



406GB

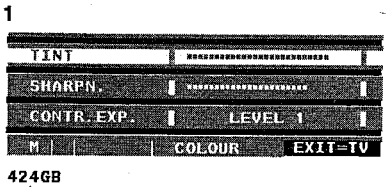
407GB




409Db




1




424GB

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**Creating program names**

☐ If you do not find a suitable name in the menu, you can invent one.

To write letters, numbers and special characters, use the numbered buttons **only**. To switch through the characters available, use the odd numbered buttons (located at the top of the menu) for forward switch-through, and the evens (at the bottom of the menu) for backward switch-through.

For fast switchthrough of the characters available, you can keep the appropriate numbered button depressed.

[a] In Menu **5**, use the **MENU** ↑, ↓, ←, → button to guide the cursor to the free editing field in the right-hand column.

[b] For SAT 9, for example, use the numbered buttons to select consecutively
the letter S with numbered button **1** or **2**,
the letter A with numbered button **3** or **4**,
the letter T with numbered button **5** or **6**,
the empty space with **8**, and
the figure 9 with numbered button **9** or **0**.

[c] To accept a new name into the station programmed data, press the **blue** button (step [5]).

**Standard**

[6] Should picture and sound reproduction of a station selected be poor (picture black-and-white only, no sound), you must now perform a standard selection procedure, as detailed on page 29 [11]-[13].

**Fine tuning**

[7] If the station selected in accordance with [2][a] or [2][c] works on a non-standard channel grid and therefore cannot be received in good quality, use the **MENU** ↑ ↓ button to move the position indicator to the FINETUNE line (Menu **2** on page 27) and use the **MENU** ← → button to perform fine tuning for optimum picture and sound quality.

**Storing in memory**

[8] To store the station in memory, press the **red** button.

[R] Repeat steps [1] – [8] for every further station you want to select and store in memory, i.e.:

| Station | Steps |
|---|---|
| with known entry number | [1] [2] [a] [4]-[8] |
| entry number not known | [1] [a] [2] [b] or [e] [4]-[8] |
| station particulars are not known or do not conform to standard | [1] [b] [2] [c] or [e] [4]-[6] [8] |

[9] To erase the programming menu from the screen, press button **TV** ●.

### Skipping program memory locations

You can program all unused program memory locations so as to ensure that they will be skipped when you perform switch-through with button **TV** ↑ ↓ or **P** ▽ △.

☐ Perform step 1 (page 26).

f In step 2 a (page 26), press **only** button -/--.

☐ Then perform steps 8 and 9.

R For every program memory location to be skipped, repeat the following steps:
select program memory location, 1, this step f, 8, 9.

Or:

! For *every further* program memory location to be skipped, perform step 3, this step f and step 8. To conclude the procedure, erase the menu from the screen by pressing button **TV** ●.

! In Menu **2**, you will see ( ) instead of a name.

### Cancelling the skip function

W Use the numbered buttons to select the program memory location desired in each case.

☐ Perform step 1.

☐ In step 2 a, again press only button -/--
or
enter the channel number directly for a particular channel you want.

☐ If necessary, perform further operating steps.

☐ Conclude the operating procedure with steps 8 and 9.

R Repeat the steps for every program memory location which you no longer want to be skipped.

! If the set is fitted with a satellite receiver, the skip function for program memory locations 20-53 is automatically cancelled.

### Copying programming data

You can transcopy a TV station already stored in memory to another program memory location, e.g. if you want to sort your TV stations into a different order once you have them all stored in memory.

10 Use the numbered buttons to select the program memory location whose station is to be copied into another program memory location.

☐ Perform the following steps described above:
1 a 3 8 9

! Storing new programmed data in this memory will erase any station data previously stored there.

! After the transcopying procedure, both the previous and the new memory will contain the same data.
You can now use the program memory location in which the data were previously stored for another station.

### Standard selection

In the AUTO programming position, this television set will automatically adjust itself to whichever standard is currently being broadcast. This is why no standard selection is usually required when programming TV stations.

If the picture being received from a particular TV station is not being reproduced in colour, or if there is no sound, you must alter the standard settings individually.

If you want to play back video tapes recorded in a different standard, you must reprogram one of the AV memory locations appropriately.

! The adjustments are performed in Menu **2** or **3** on page 27 which you had called up in one of the Steps 2.

11 Use the **MENU** ↓ button to move the cursor to the COLOUR STANDARD line, and use ← → to select AUTO, MAC-EXT, PAL, SECAM or NTSC 4.4, as necessary.
The MAC-EXT position is needed for adjusting the bandwidth if a cable MAC decoder is connected to an EXT socket (compare page 22).

12 Use the **MENU** ↓ button to move the cursor to the STANDARD line, and use ← → to select one of the reception systems:

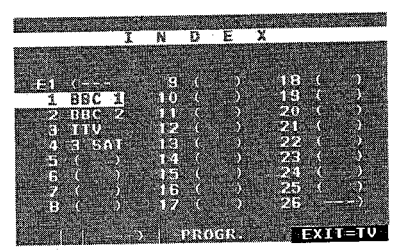
| For colour standard | PAL | SECAM | AUTO |
|---|---|---|---|
| Reception system | B/G<br>UK | EAST BG<br>EAST DK<br>WEST | SECAM E/PAL<br>SECAM W/PAL |

13 If necessary in 4:3 AV-NTSC operation, use the **VIDEO** ● button to select the TINT function as per step 4 on page 14, and use the **VIDEO** ← → button to adjust to the most natural colour reproduction, Menu **1**.

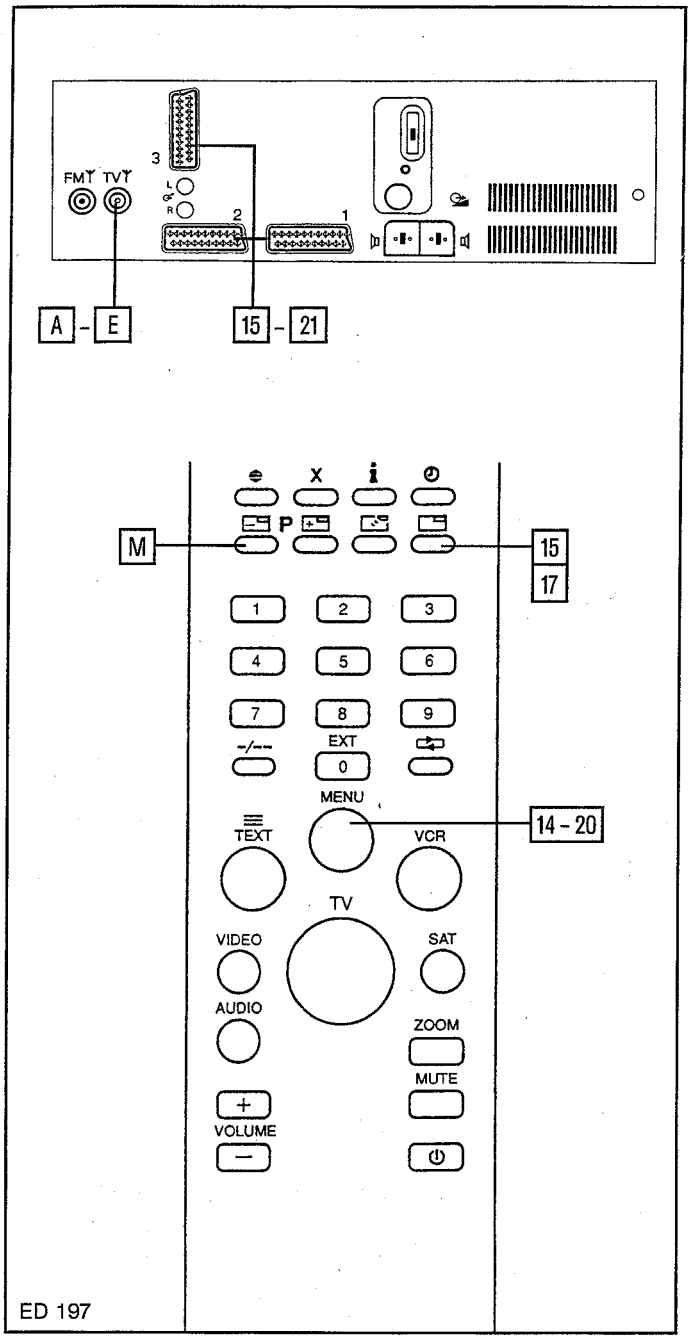
M Use the **red** button to store the standard setting selected in memory.

C Use the **TV** ● button to erase the menu from the screen.

**2**




43605




## Selecting the signal path

14 In Menu **1**, use the **MENU** ↑ ↓ button to move the cursor to the SIGNAL PATH line, and choose between the following setting options with ← → :

| | |
|---|---|
| NORMAL (TV) | for TV reception (with normal time constant). |
| NORMAL (VCR) | for video recorder operation via the aerial socket with short time constant. |
| E1-> DEC E1-> | for pay-TV decoder, unscrambler, MAC decoder. |
| E3-> DEC E3-> | for pay-TV decoder, unscrambler, MAC decoder. |
| E3-> DEC E3-> SV | for pay-TV decoder, unscrambler, MAC decoder, S-video signal |

This kind of customary additional equipment with satellite TV is also required in order to receive some cable TV programs. For a fee, they permit access to the program concerned, or undisturbed reception of a program being broadcast in encoded form.

# Programming options for the video recorder

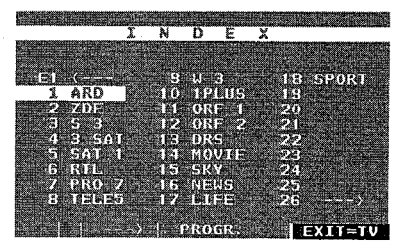
Video recorders (or other external video systems) for which you want to preprogram program memory locations, must be connected in accordance with the „Program memory locations and their functions" overview on page 25:

**TV** For a video recorder connected to the aerial socket **TV** Y:

A Carry out steps 1 and II on page 26. Menu **1** will appear.

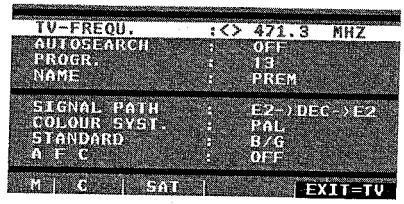
B Set your video recorder's modulator to its TEST position, and tune the TV set in step 2 d to the modulator frequency of the video recorder, using button **MENU** ← → on the remote control, e.g. approx. 615 MHz for channel 39, so that the recorder test picture becomes visible.

**INDEX**



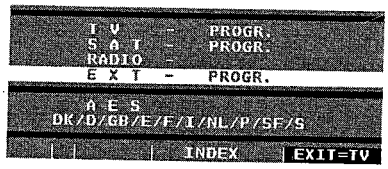

408bD

1



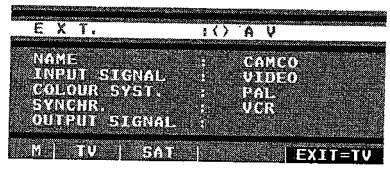

406GB

2



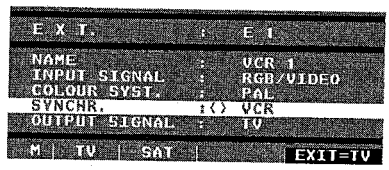

430

3



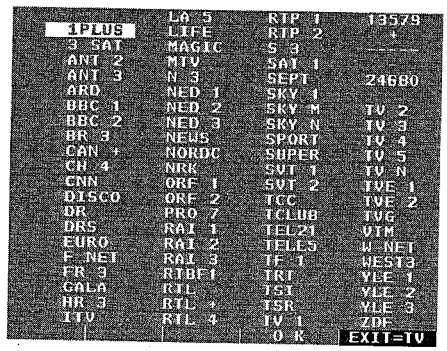

414GB

4



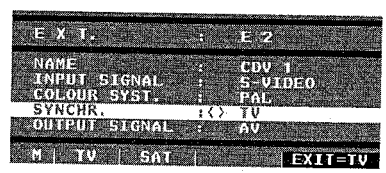

415GB

5




409Db

6




416GB

[!] Use that same button to perform now fine tuning for optimum test picture reproduction, and then switch the TEST position off again at the recorder.

[C] Perform steps [4] and [5].

[D] Perform steps [11] and [12] if necessary.

[E] Select the NORMAL (VCR) setting in step [14].

[M] To store the programmed data, press the **red** button.

**AV** For video recorders connected to the EXT **1** or **2** socket:

[15] First use the **MENU** ● button to call up the INDEX menu, and then the **blue** button to call up program selection Menu **2**. Use **MENU** ↓ to switch to the EXT.-PROGR. line, and use **MENU** ← → to call up Menu **3**.

[16] Use **MENU** ← → to select the appropriate AV socket, e.g. as in Menu **4**.

[17] Go to the NAME menu line with button **MENU** ↓, and use **MENU** → ↓ or ← ↑ to select a VCR name from Menu **5**, or create a name as described on page 28.
To accept the name into memory, press the **blue** button.

[18] If necessary, use **MENU** ↓ to switch to the INPUT SIGNAL line for the EXT **2** or **3** socket, and use → ← to select S-VIDEO or VIDEO, Menu **6**.

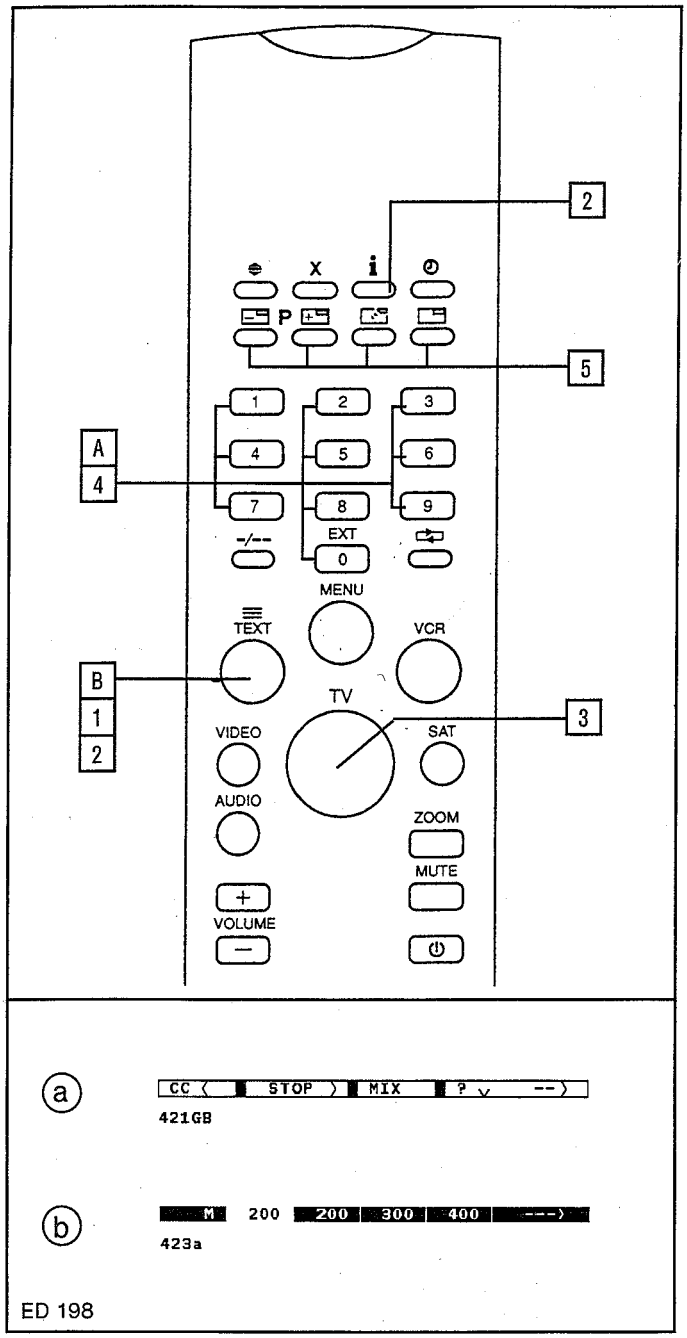
[!] It is not possible to perform any adjustment in step [18] for EXT socket **1** and the **AV** socket.

[19] Proceed to the COLOUR SYST. line with **MENU** ↓, and select NTSC, AUTO, PAL or SECAM as required.

[20] If necessary, proceed to the SYNCHR. line with **MENU** ↓, and use ← → to select the TV or VCR time constant.

[M] To store the programmed data, press the **red** button.

[R] If necessary, repeat steps [15] – [M] for every further AV socket.

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# What you need to know about the text mode

## TV MOUSE buttons and their functions

| Button | Movement | Function |
|---|---|---|
| ≡ TEXT | ● | Switch over to the text mode<br>Call up the menu line for preferred pages |
| | → | Browse forwards in text pages |
| | ← | Browse backwards in text pages |
| With the TOP index page: | | |
| | ↑, ↓, ←, → | Select subject areas and subjects with the menu cursor |
| **MENU** | → | Halt and release for automatic further browsing in a multiple page,<br>Switching the multi-page memory to multi-page mode and off again |
| | ↑ | Mix text and TV picture, and cancel mixture |
| | ↓ | Call up hidden texts, hide these texts again |
| | ← | Invert text colours, cancel inversion |
| **Blue** button | | Call up the programming menu line ⓑ for preferred pages in standard text mode (program memory locations 1-49)<br>Change between menus ⓐ and ⓑ |
| **Red** button | | Store a preferred page in memory |
| **VIDEO** | ←, → | Adjust the contrast |
| **Red** button | | Store the contrast setting in memory |
| **AUDIO** | ←, → | Adjust the acknowledgement tone volume |
| **Red** button | | Store the acknowledgement tone volume setting in memory |

**The other buttons and their functions**

| | | |
|---|---|---|
| **Colour** buttons | | Select a subject and page in the TOPTEXT and FASTEXT systems<br>Call up a programmed preferred page |
| **i** | | Call up a TOP INDEX overview page or the contents overview of the text program, e.g. Page 100 |
| **X** | | Call up and fade out the TV picture in text mode |
| ⇳ | | Double the character height in the top or bottom page half,<br>return to normal character height |
| ⏲ | | Enter a preselection page (alarm) |
| **TV** | ● | Fade out the menu line ⓐ a or ⓑ, switch back to TV operating mode |

## Text functions

Text programs are given different designations in different countries, e.g. VIDEOTEXT or TELETEXT. The contents are sometimes called pages, sometimes panels.

In some countries, text programs are broadcast in the FASTEXT system. The TOP text system is currently broadcast in some German text programs.

Text programs require a good TV signal. When reception conditions are poor, text pages may be received incompletely or not at all. For this reason, if you have a choice of stations for the same program, always choose the most powerful one.

Perform fine tuning at the set so as to ensure that you obtain the best possible TV reception.

Text programs are only transmitted together with a TV program or a test picture. Therefore, always proceed as follows:
A **First select the TV program,**
B **then switch over to the text program.**

The text decoder of the television set can store in memory several text pages simultaneously. The page memory allows you to call up adjacent text pages (such as news or program overviews) which may be related subjectwise, without appreciable waiting times, and furthermore (with the TOP and the FASTEXT systems) to select pages using a colour menu.

# The most important text functions

### 1 Switching over to the text program

In order to switch over from TV to text program, press button ≡ **TEXT** ●.

After you have switched on the set and switched over to text mode for the first time, the list of contents for the text program concerned, or (with TOP text programs) a footer line with four preferred-page numbers will appear automatically in coloured fields.

! If the TV program concerned does not broadcast a text program, the words „NO TEXT TRANSMISSION" will be superimposed on the screen.

If you have been receiving TELETEXT before switching over to a new program, you will see the page last read in from the *other* program.

### 2 Calling up the list of contents

Press button **i** for calling up the TOP text overview page or on a **colour** button for calling up one of four preferred pages from program memory locations 1-49.

Use the numbered buttons as per 4 to select text pages
or
use button ⇦ to select the previous text page
or
for TOP text programs proceed as described on pages 32 and 33
or
use the colour menu as per 5 for FASTEXT programs.
To utilize the other text functions, proceed in accordance with the instructions given on the following pages of this operating manual.

### 3 Switching back to the TV program

In order to switch back to TV reception, press button **TV** ●. Now you can, for instance, switch over to another TV program, and then to its text program.

# Page selection

The individual text pages are selected by entering the page number concerned in each case.

4 Use the numbered buttons 1 to 9 and 0 to enter the three-digit code for the page desired. You will see your input on the left of the header line, and – depending on the text program involved – next to it on the right the page number run-through in the page counter. Run-through will not commence until the complete code has been entered in three-digit form.

The colour of the page counter will change to white as soon as the page selected has been written on the screen.

Should you find it impossible to enter the three-digit page number, please check whether button ⏲ for time preselection has been pressed by mistake. To trigger this function, please press the same button ⏲ again, or on ≡ **TEXT**.

! For further options for page selection, please read the Section „Browsing in text pages".

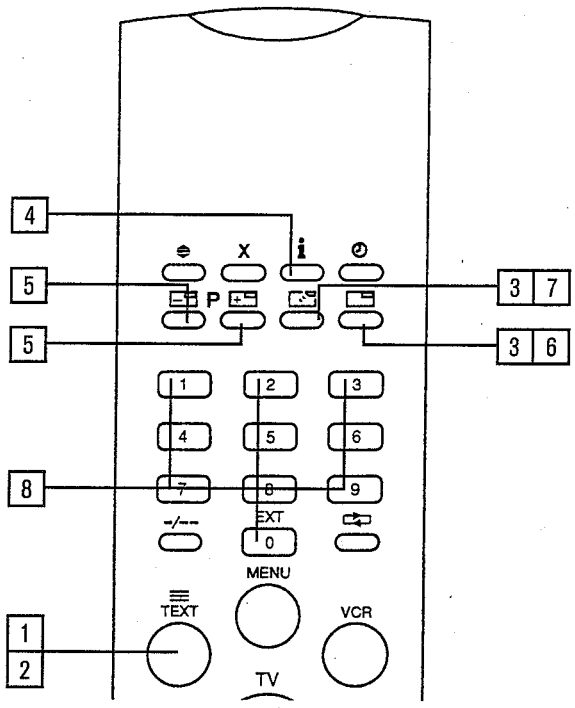
# Page selection in the FASTEXT system

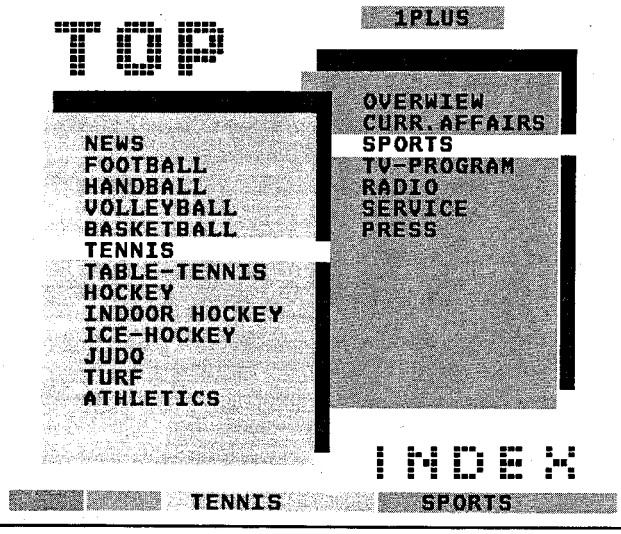
Different subject areas are marked by different colours on the text pages; these colours are repeated on the remote control.

5 For information selection, you need only the coloured FASTEXT buttons, plus button **i** on the remote control.

! If a text page appears without a colour menu, you must select another text page using the numbered buttons, see 4, or call up the list of contents, see 2.

ED 177a




# TOP text system

## Overview

The TOP system (**T**able **O**f **P**ages) provides menu-prompted guidance to enable you to select text pages quickly and easily. Menu prompting is performed with colour coding, in two different ways:

- with the TOP index page.
- with the coloured menu line below the text page.

These colours are repeated on the remote control.

Using the coloured buttons,
you will now find it easy

- to locate subject areas,
- to select subjects, and
- to browse forwards and backwards in the individual text pages.

## Please note

Due to operating conditions at the station concerned, it may happen that TOPTEXT is not being transmitted in accordance with the standard.

You will notice this by the following indications while you are operating in text mode:
After you have switched over to text mode, the yellow and cyan fields of the menu line are empty. This means that the coloured buttons and other text-function buttons cannot immediately be operated.

In such a case, please press button ≡ The set can then be operated with its standard text functions.

## Selection with the TOP index page

Press the **i** button to activate the TOP index page.
The index page shows the subject areas of a text program in the right-hand blue text field, and the individual subjects within a particular subject area in the left-hand yellow text field. To select individual lines, you can use the **TEXT** ↑ ↓ button to move the menu cursor repeatedly upwards or downwards over the text fields. When you move the menu cursor from subject area to subject area in the right-hand text field, the associated subjects will automatically change in the left-hand text field. If the program concerned offers very extensive options, you can guide the menu cursor beyond the last text line with **TEXT** ↓ or beyond the first text line with **TEXT** ↑ into the continuation page, and return to the first overview page in the same way.

Use **TEXT** ← to pass from the right to the left index page, and **TEXT** → to pass from the left to the right index page.

1 Use the **TEXT** ↑ ↓ button to select the subject area you want in the blue text field, and the subject you want in the yellow text field.

2 Use the **TEXT** ← → button to change as required between subject areas (blue) and subjects (yellow).

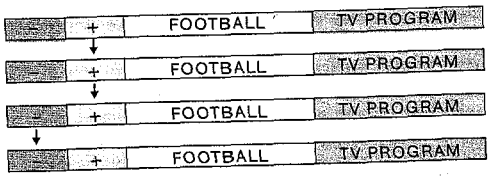
3 Press the appropriate **blue** or **yellow** button to call up the subject area or subject you have selected.

4 You can press the **i** button to call up the TOP INDEX page again at any time, and perform steps 1-3.

**5 Page selection**

After step 3, - will appear in the red field of the menu line, and + in the green field.

You can browse forwards in the single pages of a subject using the **green** button, and backwards with the **red** button, e.g.




It does not matter in this context whether the pages are occupied consecutively (e.g. 101, 102, 103, 104 ...) or with gaps (e.g. 101, 106, 118, 122 ...). The TOP system always knows *which* page is the „next" one for browsing.

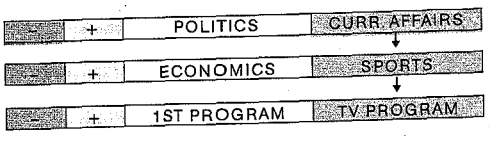
Starting from the page selected, the text decoder stores in memory 5 succeeding pages for forwards browsing.

## Selection with the menu line

Subject areas and subjects can be selected using the coloured menu line, even without the TOP index page. In this mode, too, page selection follows the procedure detailed under 5 above.

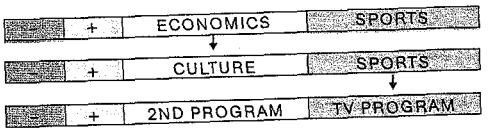
**6 Subject areas**

You can use the **blue** button to browse through the subject areas consecutively, e.g.



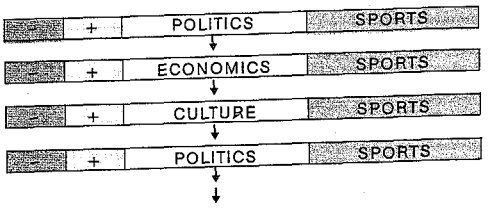

If a selected subject area is not divided into individual subjects, the yellow field will be empty, and step 7 with the **yellow** button will not be possible, so that you can perform step 5 immediately.

The menu line will always show the next selection option, e.g.

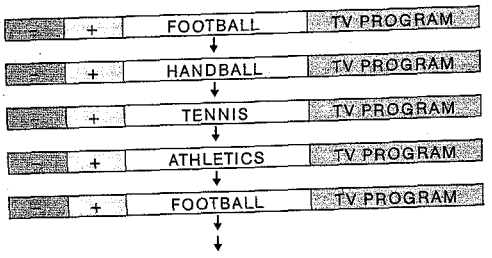



**7 Subjects**

You can use the **yellow** button to browse through the subjects contained in the subject area involved, e.g.



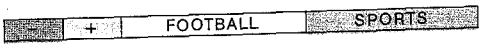

or




**8 Conventional page selection in the TOP text system**

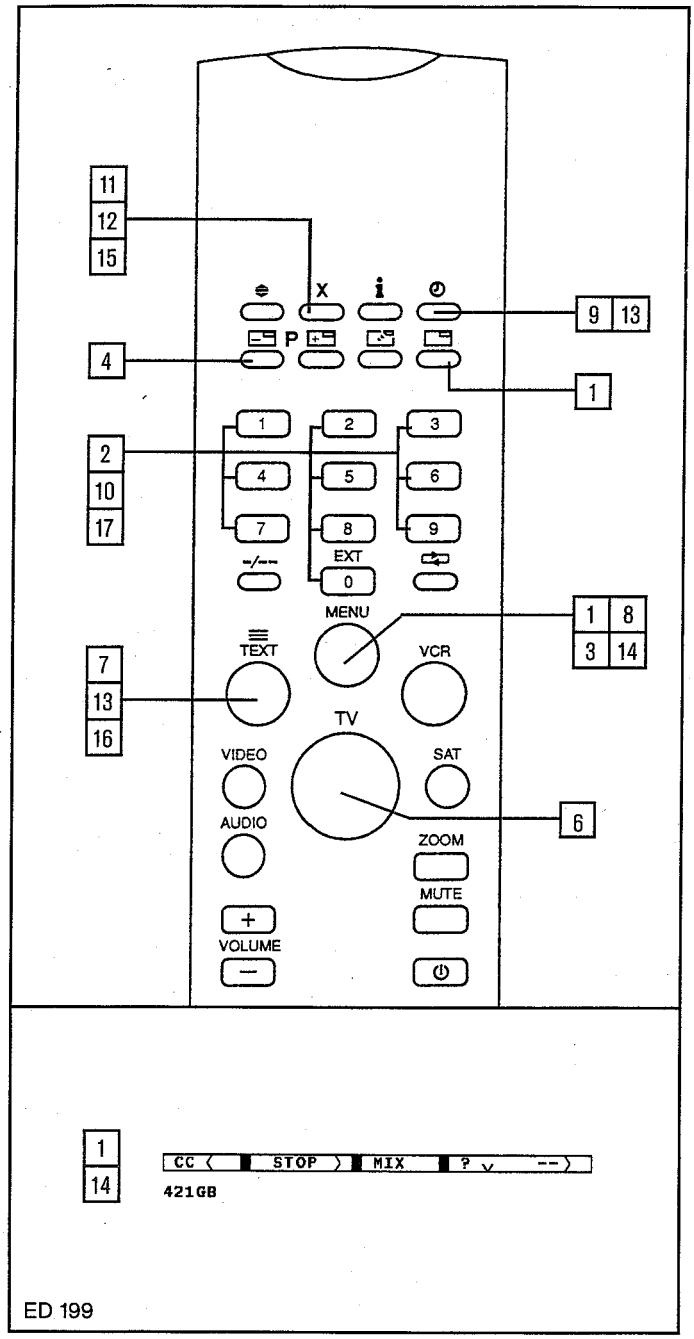
If you select a page with the numbered buttons, the standard used makes it sometimes unavoidable that a waiting time will elapse before the page is written out on the screen.

Once the page has been written on the screen, the menu line will be showing the next possible subject (yellow) and the next possible subject area (blue).




If the program does not contain any page under the page number you have selected, the letter **P** will appear flashing and the page number display in red.

The page number you have selected is lit up in red.




ED 199

# Programming preferred pages

This function is *fully* operative only with stations of program memory locations 1-49.

The numbers of the preferred pages remain stored in memory even after the set has been switched off.
If you program a page with subtitles, such as 150, for the **red** button, then *in TV mode* subtitles will appear automatically.

1 Use the **MENU** ● button to call up the menu line, and the **blue** button to call up the input line.

2 Use the numbered buttons to select the number of the text page which you want to store in memory as a preferred page.

3 Use the **MENU** ← → button to select the preferred page memory location you want for the **coloured** buttons:

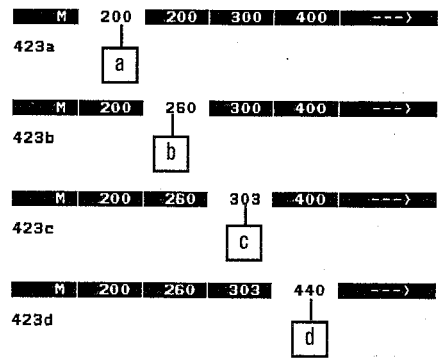
- a for the **red** button, e.g. for page 150 with subtitles
- b for the **green** button,
- c for the **yellow** button,
- d for the **blue** button.

4 Press the **red** button to store your choice in memory.

5 Repeat steps 1 – 4 for each additional preferred page.

6 Press the **TV** ● button to erase the menu line.

If the page last selected appears after you have quit and then called up the *text* program again without leaving the *TV* program concerned, press a **coloured** button to obtain a preferred page.



# Browsing in text pages

## Browsing further in text pages

7 Press
button ≡ **TEXT** → to browse forwards,
button ≡ **TEXT** ← to browse backwards.

While a text page selected is being shown, the page memory will automatically store one succeeding text page and one preceding text page as well, for you to browse in.

When you are browsing through the text pages *quickly*, you must wait until the next page has been read in.

## TOPSALO System

If a text program works neither with the TOP nor the FASTEXT system, the set's user-friendly TOPSALO system becomes operative. It reads all the text page numbers to be received into a memory table. Depending on the scope of the program involved, the procedure lasts 90 seconds, for example. During this time, the set functions as described in Step 7.

After this, all absent page numbers are automatically skipped when you browse using the ▲ + button. So after page 135, you will immediately see page 140, for example, without any waiting time intervening. You will find it significantly faster browsing in text pages than with the conventional function modes.

If you use the numbered buttons to select an absent text page, this will be displayed in red in the header line.

## Automatic browsing and halting of multiple pages

With multiple pages, several single pages are browsed through automatically under the same page number at 20 to 30-second intervals, depending on the station concerned.

They are often marked » or ›, depending on the text system and program involved, or both the single page number involved and the total number of pages available are frequently indicated by codes such as 01/04 or 1/4.

8 To halt at a single page, press button **MENU** ● and then **MENU** →. You will now see > STOP in the header line instead of S.... The halted page can remain on the screen for as long as you wish.

To resume browsing, press button **MENU** → once more to release the function. You can, however, also select another page number to quit the halted page.

## Calling up a multiple single page

9 Press button ⏲.
You will now see T 00.00 or another four-digit number in the header line instead of the time.

10 Enter the number of the multiple single page you want, e.g. 0003.

11 If you want to watch TV until the selected page appears, all you need to do is press button **X**. The number of the page entered will be visible on the left, and the number of the multiple single page selected will be visible on the right of the screen. When the multiple single page is reached, the header line will appear in the television picture.

12 Press button **X** for reading the page.

13 Press button ⏲ or ≡ **TEXT** ● to quit this text function.

## Browsing through multiple pages

You can also browse through multiple pages independently of the automatic browsing intervals. Multiple single pages are stored in memory for this purpose.

14 If the page number of a multiple page has been entered, press button **MENU** ● and then **MENU** →. You will now see > STOP instead of S... in the header line. The screen will show one of the single pages. The procedure for filling the memory with the remaining single pages can take up to 3 1/2 minutes, depending on the standard involved.

15 While this procedure is being performed, you can watch TV. Press button **X** to make the TV picture appear and disappear.

With every further new multiple single page read in, the on-screen display will change to > 2 STOP, for example, or to 11 STOP, for example.

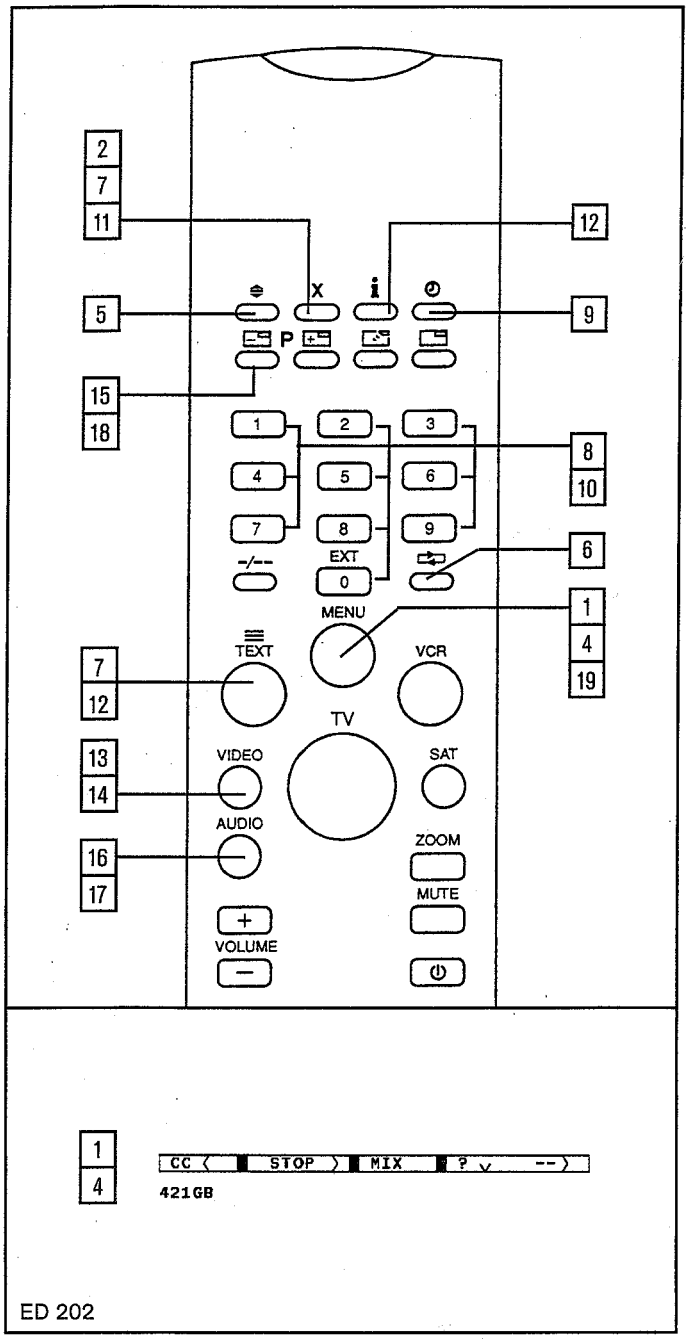
16 Multiple single pages stored in the page memory can be browsed through, with buttons ≡ **TEXT** → forwards and with **TEXT** ← backwards.

Up to 23 multiple single pages can be stored in memory.

If a multiple page contains more than 23 multiple single pages, any pages you have already read will each be replaced by new multiple single pages during browsing.

17 To quit browsing mode, all you need to do is enter a new page number or repeat Step 14.

1 If (with TOPTEXT) you perform Step 14 even though the TOP text system does not provide a multiple page under this page number, > STOP will light up red. To erase, press button **MENU** → once more.




ED 202

# Additional text functions

## 1 Mixing program contents

This function is suitable for TV programs with accompanying information in the text program.

To mix the program contents, press the **MENU** ● button and then **MENU** ↑ button once, and to cancel this function press the **MENU** ↑ button once more.

## 2 Latest news

Latest-news items are superimposed onto the TV picture on special pages. News you have read can be erased by pressing button **X**. With the next news update, a new text will appear on the TV picture.
If you want to superimpose news again manually, press button **X**.

## 3 Sub-titles

On some TV programs, sub-titles are superimposed synchronously.

Select the text page designated for the TV program in question.
If you do not wish to see subtitles, which are displayed on the screen automatically together with the preferred page (cf. page 36), then press button **TV** ● to delete.

## Automatic subtitles

*In TV mode*, you can *automatically* always receive subtitles if the accompanying TELETEXT program is broadcasting subtitles.

☐ For this purpose, program (on the program memory location you want) a TELETEXT page with subtitle mode *as a preferred page* for the **red** button,
e.g. 150: 1 2 3 a 4 on page 36.

☐ Then select the program memory location you want for automatic subtitles *in TV operating mode*.

☐ If you do not want to see automatic subtitles, press button **TV** ●.

## 4 Retrieval of hidden texts

Some text pages contain results of television university exercises, answers to quiz questions, or VPS times for video recorder programming.

Press the **MENU** ● and then the **MENU** ↓ button to call up these hidden texts. To hide them again, press the **MENU** ↓ button once more.

### [5] Double character height

Repeated pressing of button ⇳ will cause the character height of the top and the bottom page half alternately to be doubled, and then reduced back to normal character height again for the complete page.

### [6] Changing between two test pages

You can use the ⇨ button to switch back and forth immediately between the page previously selected and your current page choice.

### [7] Page selection in the television picture

In order to bridge the (sometimes lengthy) waiting times when searching for text pages, you can also perform every page selection procedure while the television picture is still visible on the screen.

To do this, press button **X**. Use the numbered buttons to select a page number. The number will remain visible on the screen until the page you have selected has been found; the header will then be superimposed on the TV picture.

In order to switch back to the text page, press button **X** again or the ☰ **TEXT** ● button.

## Entering a preselection page

Some text programs incorporate a special page, such as „alarm clock" in Austria. For this type of page, you can preselect the time at which you want to see it.

[8] Enter the page number you want.

[9] Press button ⏲.
T 00.00, for example, will now appear in the header line instead of the time.

[10] Enter the desired time in four-digit form, e.g. 1715 or 0830.

[11] If you want to watch TV until the page appears, all you need to do is press button **X**. When the time arrives, the header line will appear in the TV picture. Press button **X** again for reading the page.

[12] Press button ⏲ or ☰ **TEXT** ● to quit this text function.

## Adjusting picture and sound

### Text contrast

You can correct the contrast setting while in text mode.

[13] Use the **VIDEO** ● button to call up the menu for the contrast setting.

[14] Alter the contrast setting in the TV MOUSE directions **VIDEO** ← →.

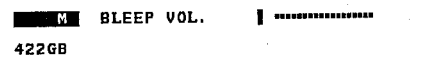
[15] Use the **red** button to store the altered setting in memory.

### Acknowledgement tone

In text mode, every entry is acknowledged by a signal tone, whose volume can be adjusted or suppressed.

[16] Use the **AUDIO** ● button to call up the menu for volume adjustment.

[17] Adjust the volume in the TV MOUSE directions **AUDIO** ← →, or suppress the tone entirely.

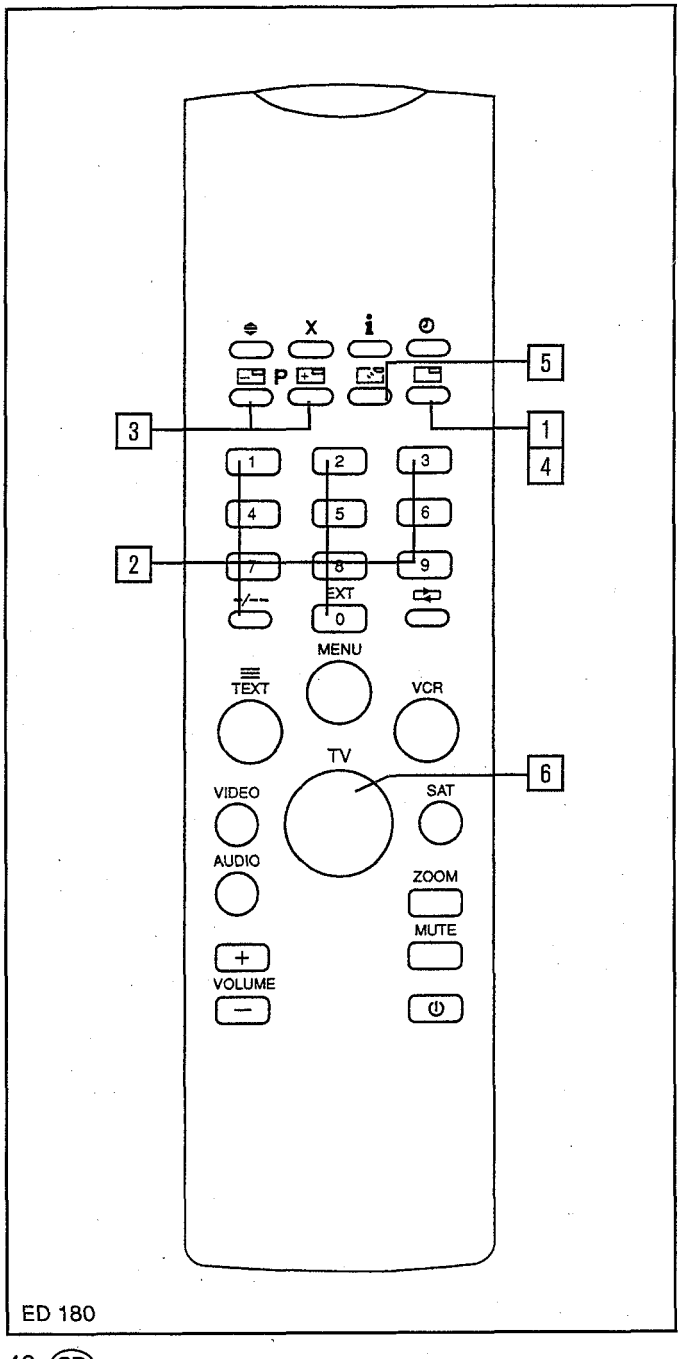



[18] Use the **red** button to store the settings in memory.

### Colour reversal

This function enables you to get a colour representation pattern for text contents which is in many cases easier to read, e.g. with mixed text and program contents [1].

[19] To reverse the text colours, press button **MENU** ● and then ←. To return to the original colour representation pattern, press button **MENU** ← again.



ED 180

# Monitoring mode

Picture-in-picture (PIP)
Picture-out-of-picture (POP)

This television set offers you the option of displaying monitor pictures from the sources listed below onto the TV picture which you are seeing in full size on the screen, for purposes of monitoring or comparison:
Satellite TV channels*
EXT **1**
EXT **2**
EXT **3**
**AV**

The TV picture, too, can be inserted as a monitor picture, e.g. for still-picture purposes.

The PIP or POP operating mode will switch over automatically when the picture format is changed with the ZOOM button.

* With built-in satellite receiver.
An **external** satellite receiver functions like an additional external program source.

## Picture-in-picture (PIP)

This function is possible with:
16:9 picture format,
4:3 film picture (zoom).

At the top right of the screen, a monitor picture will appear.

**Calling up the monitor picture**

1 Press the blue button ▭.
The set automatically chooses the first possible program source which deviates from the main picture. If there are no external sets connected and no satellite receiver is built in, the terrestrial TV program will appear as the monitor picture. Source number or program number will be displayed on-screen below the monitor picture.

2 **Program selection for the main picture**

Select TV programs in the usual way.

3 **Source selection for the monitor picture**

To switch through programs and sources for the monitor picture, use **only** the **green** button ▭+ for forward and **only** the **red** button ▭- for backward switch-through.

If you keep the **green** button ▭+ depressed for approx. 2 seconds, switch-through will be performed automatically. After you have pressed the same button yet another time, it will again be possible to switch through programs and sources manually.

4 **Electronic still picture**

To halt the monitor picture, press the **blue** button ▭.

Since the still picture in question is an electronic one, this means, for example, that a video recorder connected will nevertheless continue to run.

To cancel the still picture, press the **blue** button ▭ again. The current program will be continued.

In addition, all other steps apart from 2 will cause the electronic still picture to be cancelled.

5 **Interchanging monitor picture and main picture**

To interchange the picture **and** sound contents, just press the **yellow** button ▭ in each case.

! Any still-picture function of the monitor picture will automatically be cancelled.

6 **Erasing the monitor picture**

To erase the monitor picture, press button **TV** ●.

## Picture-out-of-picture (POP)

This function is operative with the 4:3 format. The main picture is located on the left, and next to it on the right a column of three monitor pictures will appear.

The operating functions involved differ from the picture-in-picture operating mode described above as follows:

1 **Calling up monitor pictures**

When you press the **blue** button ▭ for the first time, the first possible program source will appear as the top monitor picture. The monitor pictures below it are still pictures of the main picture source.

When you press the **blue** button ▭ again, the satellite and external program sources available are switched through one after the other, and shown in the picture column first as monitor and then as still pictures.

Every on-screen display picture will be accompanied by a program on-screen display.
To switch through programs and sources for the monitor picture, use **only** the **green** button ▭+ for forward and **only** the **red** button ▭- for backward switch-through.

If you keep the **green** button ▭+ depressed for approx. 2 seconds, switch-through will be performed automatically. After you have pressed the same button yet another time, it will again be possible to switch through programs and sources manually.

2 **Program selection for the main picture**

When you select another terrestrial TV program as the main picture, the 4:3 film picture will be switched on, and the source of the originally moving picture of the POP picture column will be retained as the program source for the monitor picture.

3 **Program source selection for the monitor pictures**

Every time you press the **green** or the **red** button ▭ or ▭, the current monitor picture becomes a still picture, and the next (or preceding) one will become the moving picture of another program source.

4 **Electronic still picture**

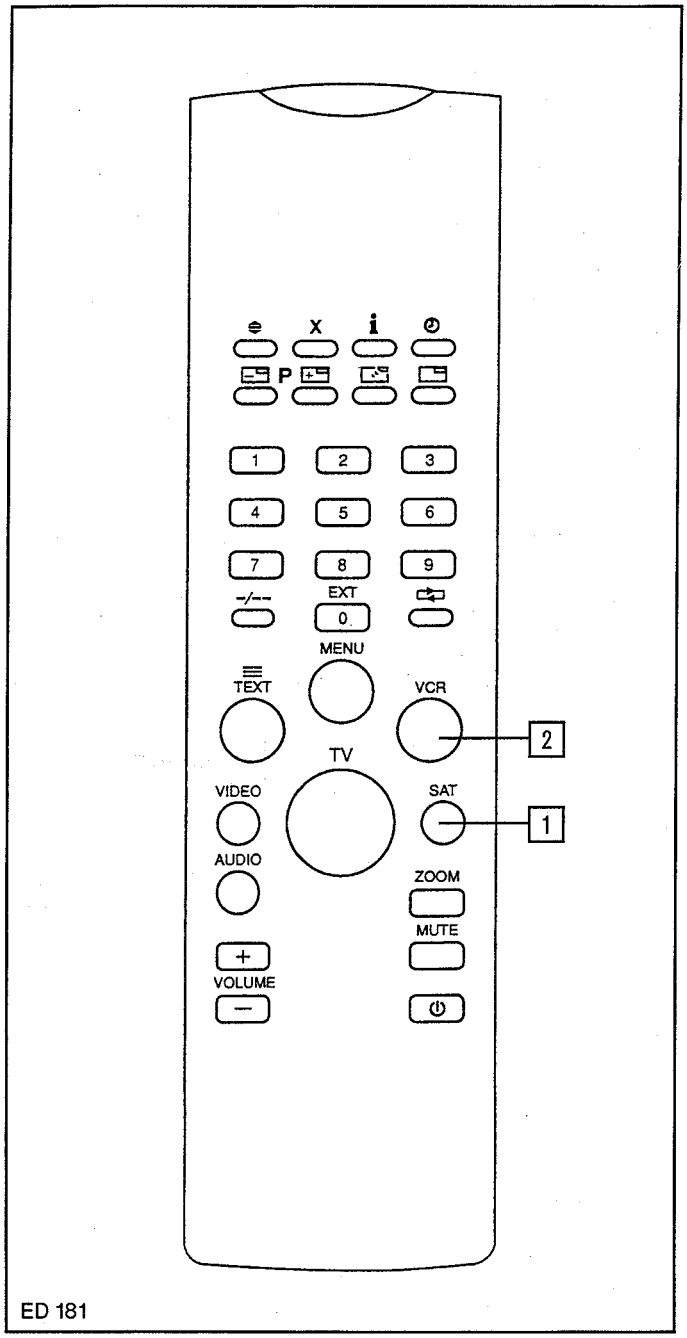
Every time you press the **blue** button ▭, another still picture from the monitor program source will be produced.

5 **Interchanging monitor picture and main picture**

Use the **yellow** button ▭ to interchange the currently moving monitor picture with the main picture. Any still pictures in the picture column will be lost.

6 **Erasing the monitor pictures**

To erase the monitor pictures, press button **TV** ●.




ED 181

# Satellite reception

**1. With a retrofitted satellite tuner**

All satellite reception functions are controlled with this remote control, in accordance with separate operating instructions.

**2. With an external satellite receiver**

The most important functions of some external NOKIA satellite receivers can be controlled with this remote control.

☐ Point the remote control at the external satellite receiver.

[1] Press the **SAT** button in the following TV MOUSE directions:

↑ Selecting an audio channel
→ Switching through the satellite programs forwards
← Switching through the satellite programs backwards

# Video recorder control

With some NOKIA video recorders, the most important playback functions can be controlled using this remote control without an additional connection cable:

☐ Point the remote control at the video recorder.

[2] Press the **VCR** button in the following TV MOUSE directions:

● Start
↓ Stop
↑ Pause
→ Fast forward, forward picture search
← Fast rewind, backward picture search

# Assignment of connections for EXT sockets

**EXT 1**

1 Audio output B
2 Audio input B
3 Audio output A
4 Audio ground
5 Blue ground
6 Audio input A
7 Blue
8 Switching voltage:
Video code > 9.5 V
16:9 code 4.5-7 V
9 Green ground
10 –
11 Green
12 –
13 Red ground
14 Ground
15 Red
16 Blanking signal
17 Video output ground
18 Video input ground
19 Video output
20 Video input
21 Screening or ground

**EXT 2**

1 Audio output B
2 Audio input B
3 Audio output A
4 Audio ground
5 –
6 Audio input A
7 –
8 Switching voltage:
Video code > 9.5 V
16:9 code 4.5-7 V
9 –
10 –
11 –
12 –
13 –
14 –
15 Chroma signal S-VHS
16 –
17 Video output ground
18 Video input ground
19 Video output
20 Video input or luminance with S-VHS
21 Screening or ground

**EXT 3**

1 Audio output B
2 Audio input B
3 Audio output A
4 Audio ground
5 Ground
6 Audio input A
7 –
8 Switching voltage:
Video code > 9.5 V
16:9 code 4.5-7 V
9 Ground
10 –
11 –
12 –
13 Ground
14 Ground
15 Chroma signal S-VHS
16 –
17 Video output ground
18 Video input ground
19 –
20 Video input or luminance with S-VHS
21 Screening or ground

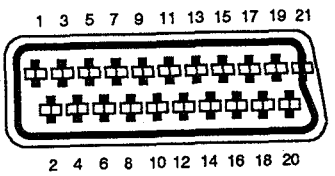
**AV**

VIDEO Video input
AUDIO L Audio input, left-hand
AUDIO R Audio input, right-hand

**Audio socket**

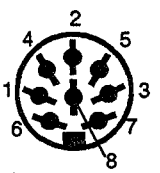
1 Do not connect anything!
2 Ground
3 Audio output, left-hand
4 Do not connect anything!
5 Audio output, right-hand
6 –
7 –
8 +12 V

**EXT**



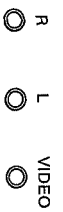

ED 116

**Audio**

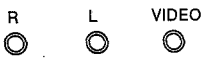



ED 117

**AV 8291**
**7291**




**AV 9291**




ED 182

# Care of the housing

For care and cleaning of the housing components and the screen, we recommend the use of commercially available household cleaning agents, following the instructions of the manufacturers concerned.

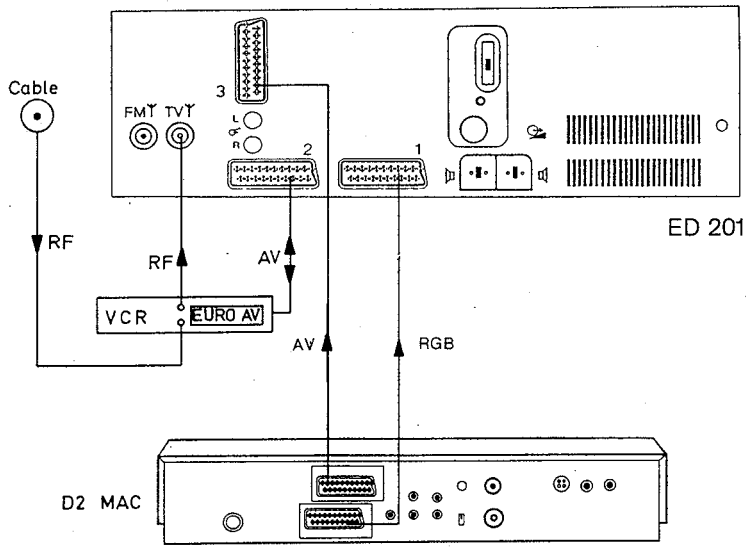
**Never use agents containing abrasive substances for cleaning housing components.**

# Retrofitting and modification options, accessories

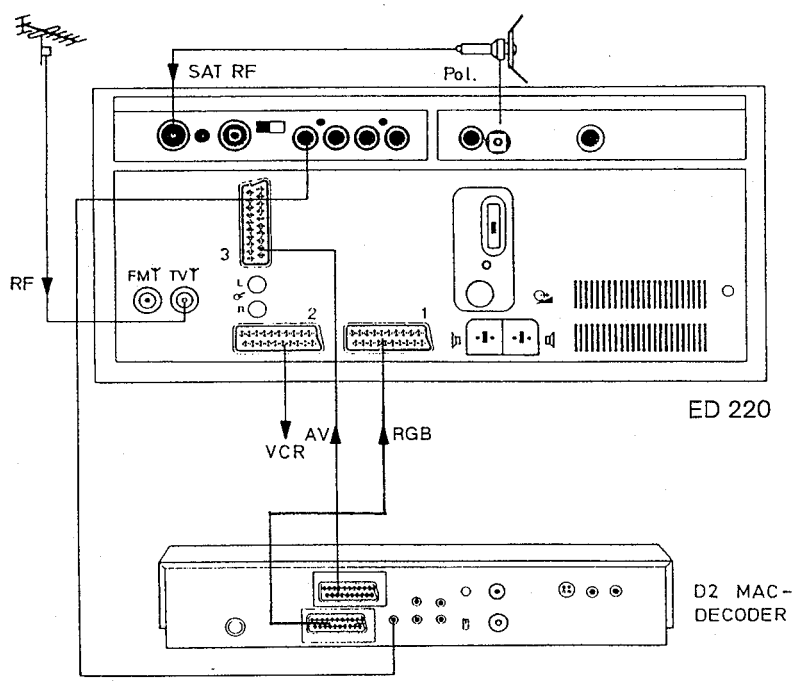
| What you want in addition is ... | What you need is ... |
|---|---|
| to receive FM radio programs | a radio module |
| to receive satellite channels | a satellite module |
| to improve bass reproduction | a SUBWOOFER |
| an elegant support base | the TV STAND accessory |

**Subject to alterations!**

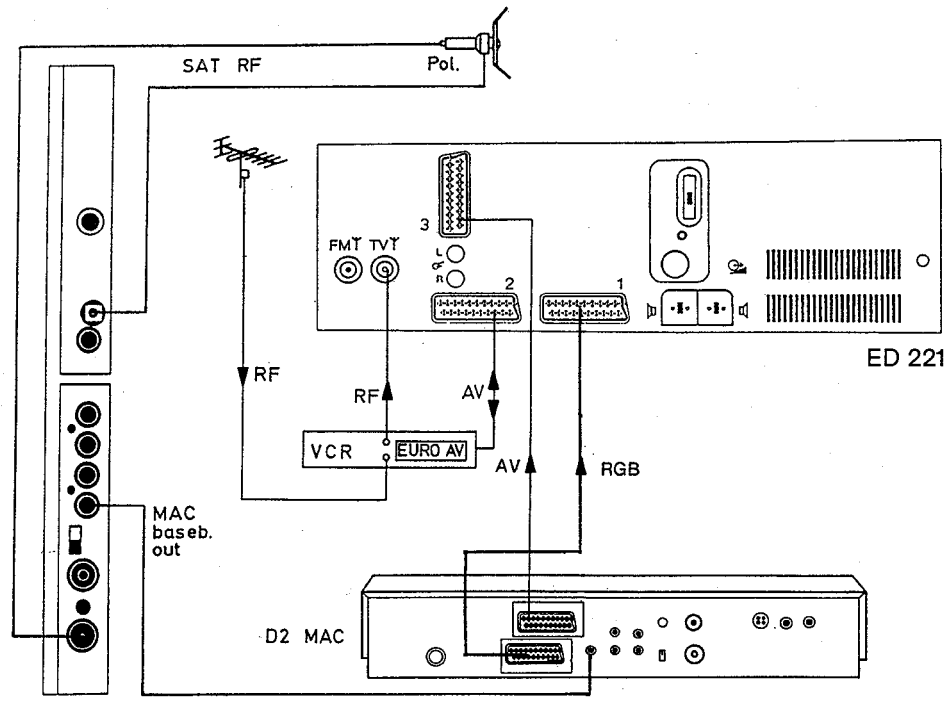
## Cable MAC




## SAT MAC 9291



**SAT MAC**
**7291**
**8291**



**A**

| 1 | 2 | 3 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | 00 | 45.25 (NZ) | E50 | 50 | 703.25 |
| A | 01 | 45.75 (IRL) | E51 | 51 | 711.25 |
| E2 | 02 | 48.25 | E52 | 52 | 719.25 |
| E3 | 03 | 55.25 | E53 | 53 | 727.25 |
| E4 | 04 | 62.25 | E54 | 54 | 735.25 |
| E5 | 05 | 175.25 | E55 | 55 | 743.25 |
| E6 | 06 | 182.25 | E56 | 56 | 751.25 |
| E7 | 07 | 189.25 (EU) | E57 | 57 | 759.25 |
| E8 | 08 | 196.25 | E58 | 58 | 767.25 |
| E9 | 09 | 203.25 | E59 | 59 | 775.25 |
| E10 | 10 | 210.25 | E60 | 60 | 783.25 (EU) |
| E11 | 11 | 217.25 | E61 | 61 | 791.25 |
| E12 | 12 | 224.25 | E62 | 62 | 799.25 |
| A | 13 | 53.75 | E63 | 63 | 807.25 |
| B | 14 | 62.25 | E64 | 64 | 815.25 |
| C | 15 | 82.25 | E65 | 65 | 823.25 |
| D | 16 | 175.25 | E66 | 66 | 831.25 |
| E | 17 | 183.75 (I) | E67 | 67 | 839.25 |
| F | 18 | 192.25 | E68 | 68 | 847.25 |
| G | 19 | 201.25 | E69 | 69 | 855.25 |
| H | 20 | 210.25 | E70 | 70 | 863.25 |
| E21 | 21 | 471.25 | 2 | 71 | 57.75 |
| E22 | 22 | 479.25 | 7 | 72 | 176.25 (RC) |
| E23 | 23 | 487.25 | 8 | 73 | 184.25 |
| E24 | 24 | 495.25 | MK4 | 74 | 163.25 |
| E25 | 25 | 503.25 | MK5 | 75 | 171.25 |
| E26 | 26 | 511.25 | MK6 | 76 | 179.25 |
| E27 | 27 | 519.25 | MK7 | 77 | 187.25 (MA) |
| E28 | 28 | 527.25 | MK8 | 78 | 195.25 |
| E29 | 29 | 535.25 | MK9 | 79 | 203.25 |
| E30 | 30 | 543.25 | MK10 | 80 | 211.25 |
| E31 | 31 | 551.25 | 10 | 81 | 200.25 (RC) |
| E32 | 32 | 559.25 | A2 | 82 | 55.25 |
| E33 | 33 | 567.25 | A3 | 83 | 61.25 |
| E34 | 34 | 575.25 | A4 | 84 | 67.25 |
| E35 | 35 | 583.25 (EU) | A5 | 85 | 77.25 |
| E36 | 36 | 591.25 | A6 | 86 | 83.25 |
| E37 | 37 | 599.25 | A7 | 87 | 175.25 (USA) |
| E38 | 38 | 607.25 | A8 | 88 | 181.25 |
| E39 | 39 | 615.25 | A9 | 89 | 187.25 |
| E40 | 40 | 623.25 | A10 | 90 | 193.25 |
| E41 | 41 | 631.25 | A11 | 91 | 199.25 |
| E42 | 42 | 639.25 | A12 | 92 | 205.25 |
| E43 | 43 | 647.25 | A13 | 93 | 211.25 |
| E44 | 44 | 655.25 | K1 | 94 | 43.25 |
| E45 | 45 | 663.25 | K2 | 95 | 52.25 (OIRT) |
| E46 | 46 | 671.25 | K3 | 96 | 60.25 |
| E47 | 47 | 679.25 | | 97 | 49.25 |
| E48 | 48 | 687.25 | | 98 | 56.25 (B) |
| E49 | 49 | 695.25 | | 99 | 63.25 |

(EU) = CCIR (OIRT) = OIRT

**B**

| 1 | 2 | 3 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 3 | 00 | 65.75 (RC) | | 50 | 190.25 (B) |
| S1 | 01 | 105.25 | R1 | 51 | 49.75 |
| S2 | 02 | 112.25 | R2 | 52 | 59.25 |
| S3 | 03 | 119.25 | R3 | 53 | 77.25 |
| S4 | 04 | 126.25 | R4 | 54 | 85.25 |
| S5 | 05 | 133.25 | R5 | 55 | 93.25 |
| S6 | 06 | 140.25 | R6 | 56 | 175.25 (OIRT) |
| S7 | 07 | 147.25 | R7 | 57 | 183.25 |
| S8 | 08 | 154.25 | R8 | 58 | 191.25 |
| S9 | 09 | 161.25 | R9 | 59 | 199.25 |
| S10 | 10 | 168.25 | R10 | 60 | 207.25 |
| S11 | 11 | 231.25 | R11 | 61 | 215.25 |
| S12 | 12 | 238.25 | R12 | 62 | 223.25 |
| S13 | 13 | 245.25 | U1 | 63 | 226.25 |
| S14 | 14 | 252.25 | U2 | 64 | 234.25 |
| S15 | 15 | 259.25 | U3 | 65 | 242.25 |
| S16 | 16 | 266.25 | U4 | 66 | 250.25 |
| S17 | 17 | 273.25 | U5 | 67 | 258.25 |
| S18 | 18 | 280.25 | | 68 | 47.25 |
| S19 | 19 | 287.25 | | 69 | 69.25 |
| S20 | 20 | 294.25 | | 70 | 83.25 |
| S21 | 21 | 303.25 (EU) | M1/7 | 71 | 104.25 |
| S22 | 22 | 311.25 | M2/7 | 72 | 111.25 |
| S23 | 23 | 319.25 | M3/7 | 73 | 118.25 |
| S24 | 24 | 327.25 | M4/7 | 74 | 125.25 |
| S25 | 25 | 335.25 | M5/7 | 75 | 132.25 (B) |
| S26 | 26 | 343.25 | M6/7 | 76 | 139.25 |
| S27 | 27 | 351.25 | M7/7 | 77 | 146.25 |
| S28 | 28 | 359.25 | M8/7 | 78 | 153.25 |
| S29 | 29 | 367.25 | M9/7 | 79 | 160.25 |
| S30 | 30 | 375.25 | M10/7 | 80 | 167.25 |
| S31 | 31 | 383.25 | M1/8 | 81 | 110.25 |
| S32 | 32 | 391.25 | M2/8 | 82 | 118.25 |
| S33 | 33 | 399.25 | M3/8 | 83 | 126.25 |
| S34 | 34 | 407.25 | M4/8 | 84 | 134.25 |
| S35 | 35 | 415.25 | M5/8 | 85 | 142.25 |
| S36 | 36 | 423.25 | M6/8 | 86 | 150.25 |
| S37 | 37 | 431.25 | M7/8 | 87 | 158.25 |
| S38 | 38 | 439.25 | M8/8 | 88 | 166.25 |
| S39 | 39 | 447.25 | 11 | 89 | 208.25 (RC) |
| S40 | 40 | 455.25 | 0 | 90 | 46.25 |
| S41 | 41 | 463.25 | 1 | 91 | 57.25 |
| C | 42 | 61.75 (IRL) | 2 | 92 | 64.25 |
| S22H | 43 | 315.25 | 3 | 93 | 86.25 |
| S24H | 44 | 339.25 | 4 | 94 | 95.25 (AUS) |
| S26H | 45 | 363.25 | 5 | 95 | 102.25 |
| S28H | 46 | 387.25 (EU) | 5A | 96 | 138.25 |
| S30H | 47 | 411.25 | 10 | 97 | 209.25 |
| S32H | 48 | 435.25 | 11 | 98 | 216.25 |
| S34H | 49 | 459.25 | 13 | 99 | 247.44 (SA) |

(EU) = CCIR (OIRT) = OIRT

**F**

| 1 | 2 | 3 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| | 00 | | 50 | 50 | 703.25 |
| | 01 | | 51 | 51 | 711.25 |
| 2 | 02 | 55.75 | 52 | 52 | 719.25 |
| 3 | 03 | 60.50 | 53 | 53 | 727.25 |
| 4 | 04 | 63.75 | 54 | 54 | 735.25 |
| 5 | 05 | 176.00 | 55 | 55 | 743.25 |
| 6 | 06 | 184.00 (F) | 56 | 56 | 751.25 |
| 7 | 07 | 192.00 | 57 | 57 | 759.25 |
| 8 | 08 | 200.00 | 58 | 58 | 767.25 |
| 9 | 09 | 208.00 | 59 | 59 | 775.25 (EU) |
| 10 | 10 | 216.00 | 60 | 60 | 783.25 |
| | 11 | | 61 | 61 | 791.25 |
| | 12 | | 62 | 62 | 799.25 |
| | 13 | | 63 | 63 | 807.25 |
| | 14 | | 64 | 64 | 815.25 |
| | 15 | | 65 | 65 | 823.25 |
| | 16 | | 66 | 66 | 831.25 |
| | 17 | | 67 | 67 | 839.25 |
| | 18 | | 68 | 68 | 847.25 |
| | 19 | | 69 | 69 | 855.25 |
| | 20 | | | 70 | |
| 21 | 21 | 471.25 | | 71 | |
| 22 | 22 | 479.25 | | 72 | |
| 23 | 23 | 487.25 | | 73 | |
| 24 | 24 | 495.25 | | 74 | |
| 25 | 25 | 503.25 | | 75 | |
| 26 | 26 | 511.25 | | 76 | |
| 27 | 27 | 519.25 | | 77 | |
| 28 | 28 | 527.25 | | 78 | |
| 29 | 29 | 535.25 | | 79 | |
| 30 | 30 | 543.25 | B | 80 | 116.75 |
| 31 | 31 | 551.25 | C | 81 | 128.75 |
| 32 | 32 | 559.25 | D | 82 | 140.75 |
| 33 | 33 | 567.25 | E | 83 | 152.75 |
| 34 | 34 | 575.25 | F | 84 | 164.75 |
| 35 | 35 | 583.25 (EU) | G | 85 | 176.75 |
| 36 | 36 | 591.25 | H | 86 | 188.75 |
| 37 | 37 | 599.25 | I | 87 | 200.75 (F) |
| 38 | 38 | 607.25 | J | 88 | 212.75 |
| 39 | 39 | 615.25 | K | 89 | 224.75 |
| 40 | 40 | 623.25 | L | 90 | 236.75 |
| 41 | 41 | 631.25 | M | 91 | 248.75 |
| 42 | 42 | 639.25 | N | 92 | 260.75 |
| 43 | 43 | 647.25 | O | 93 | 272.75 |
| 44 | 44 | 655.25 | P | 94 | 284.75 |
| 45 | 45 | 663.25 | Q | 95 | 296.75 |
| 46 | 46 | 671.25 | | 96 | |
| 47 | 47 | 679.25 | | 97 | |
| 48 | 48 | 687.25 | | 98 | |
| 49 | 49 | 695.25 | | 99 | |

(EU) = CCIR

**C**

| 1 | 2 | 3 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| | 00 | | | 50 | 120.00 |
| 1 | 01 | 307.25 | | 51 | 132.00 |
| 2 | 02 | 315.25 | | 52 | 144.00 |
| 3 | 03 | 323.25 | | 53 | 156.00 |
| 4 | 04 | 331.25 | | 54 | 168.00 |
| 5 | 05 | 339.25 | | 55 | 180.00 |
| 6 | 06 | 347.25 | | 56 | 192.00 |
| 7 | 07 | 355.25 | | 57 | 204.00 |
| 8 | 08 | 363.25 | | 58 | 216.00 |
| 9 | 09 | 371.25 | | 59 | 228.00 |
| 10 | 10 | 379.25 | | 60 | 240.00 |
| 11 | 11 | 387.25 | | 61 | 252.00 |
| 12 | 12 | 395.25 | | 62 | 264.00 |
| 13 | 13 | 403.25 | | 63 | 276.00 |
| 14 | 14 | 411.25 | | 64 | 288.00 |
| 15 | 15 | 419.25 | | 65 | 300.00 |
| 16 | 16 | 427.25 | | 66 | |
| 17 | 17 | 435.25 | | 67 | |
| 18 | 18 | 443.25 | | 68 | |
| 19 | 19 | 451.25 | | 69 | |
| 20 | 20 | 459.25 | 70 | 70 | 128.00 |
| | 21 | | 71 | 71 | 136.00 |
| | 22 | | 72 | 72 | 144.00 |
| | 23 | | 73 | 73 | 152.00 |
| | 24 | | 74 | 74 | 160.00 |
| | 25 | | 75 | 75 | 168.00 |
| | 26 | | 76 | 76 | 176.00 |
| | 27 | | 77 | 77 | 184.00 |
| | 28 | | 78 | 78 | 192.00 |
| | 29 | | 79 | 79 | 200.00 |
| | 30 | 303.25 | 80 | 80 | 208.00 |
| | 31 | 315.25 | 81 | 81 | 216.00 |
| | 32 | 327.25 | 82 | 82 | 224.00 |
| | 33 | 339.25 | 83 | 83 | 232.00 |
| | 34 | 351.25 | 84 | 84 | 240.00 |
| | 35 | 363.25 | 85 | 85 | 248.00 |
| | 36 | 375.25 | 86 | 86 | 256.00 |
| | 37 | 387.25 | 87 | 87 | 264.00 |
| | 38 | 399.25 | 88 | 88 | 272.00 |
| | 39 | 411.25 | 89 | 89 | 280.00 |
| | 40 | 423.25 | 90 | 90 | 288.00 |
| | 41 | 435.25 | 91 | 91 | 296.00 |
| | 42 | 447.25 | 92 | 92 | 120.00 |
| | 43 | 459.25 | | 93 | |
| | 44 | | | 94 | |
| | 45 | | | 95 | |
| | 46 | | | 96 | |
| | 47 | | | 97 | |
| | 48 | | | 98 | |
| | 49 | | | 99 | |